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ABSTRACT

Fulfilling a legislative mandate in 1984, Connecticut established mastery tests in mathematics and language arts (listening, reading, and writing skills) for grades 4, 6, and 8. Criterion-referenced tests were considered most appropriate for assessing achievement and determining individual remediation needs. The Grade 8 Mastery Test results for 1990 are provided. The Grade 8 Mathematics Test assesses 36 specific objectives in conceptual understanding, computational skills, problem solving/applications, and measurement/geometry. The 111-item language arts test covers reading/listening and writing/study skills. Eighth-graders mastered an average of 25.7 of the 36 objectives in mathematics tested, up slightly from the previous year's figure of 25.3. Eighth-graders mastered an average of 8.4 of the 11 objectives tested in language arts, up slightly from the previous year's figure of 8.0. Their writing and reading scores were equivalent to those of the preceding year. Procedures for scoring and equating scores for meaningful comparisons are discussed. Test results for 1986 through 1990 are summarized. Fourteen charts present student achievement data. Thirteen appendices present test construction practices, specific objectives, the remedial standard setting process and committees, an overview of holistic scoring and marker papers for holistic scoring, the analytic rating guide and marker papers for analytic scoring, sample mastery test score reports, fall 1990 state by district reports in mathematics and language arts, the percentage of students meeting the statewide goal in each content area by district on the Connecticut Mastery Test, types of community classifications, education reference group descriptions, and student participation rates. (SLD)

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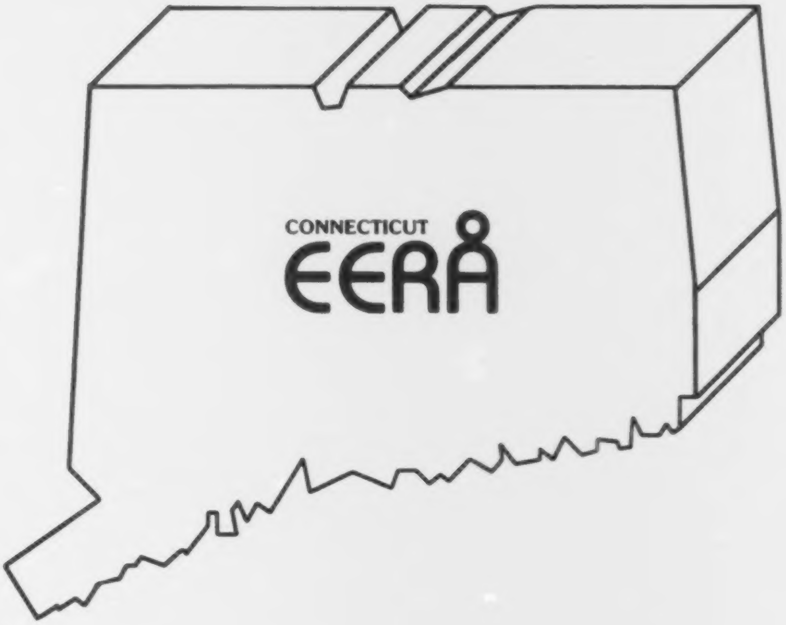
CONNECTICUT EDUCATION EVALUATION AND REMEDIAL ASSISTANCE

GRADE 8 MASTERY TEST RESULTS

SUMMARY AND INTERPRETATIONS 1990-91



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GRADE 8 MASTERY TEST RESULTS

SUMMARY AND INTERPRETATIONS: 1990-91

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LEGISLATIVE BACKGROUND

In June 1984, the General Assembly of the State of Connecticut amended Section 10-14 m-r of the Connecticut General Statutes, an act concerning Education Evaluation and Remedial Assistance (EERA). This law provides that:

- By May 1, 1985, each local or regional board of education shall have developed and submitted for State Board of Education approval, a new plan of educational evaluation and remedial assistance. Each plan had to address the following:
  - the use of student assessment results for instructional improvement;
  - the identification of individual students in need of remedial assistance in language arts/reading and mathematics;
  - the provision of remedial assistance to students with identified needs; and
  - the evaluation of the effectiveness of the instructional programs in language arts/reading and mathematics.
- The State Board of Education shall administer an annual statewide mastery test in language arts/reading and mathematics to all fourth-, sixth- and eighth-grade students, with the following exceptions:
  - Special Education students who are excluded by a Planning and Placement Team (PPT) decision;
  - students who have been enrolled in an "English as a Second Language" program for two years or less; or
  - students enrolled in a Bilingual Program (as defined in Section 10-17e of the Connecticut General Statutes) for two years or less.
- Each student who scores below the statewide remedial standard on one or more parts of the eighth-grade mastery examination or the ninth-grade proficiency test shall be retested. These students shall be retested annually, using the eighth-grade mastery test, only in the deficient area(s) until such students score at or above the statewide remedial standard(s).
- Biennially, each local or regional board of education shall submit to the State Board of Education a report which includes indicators of student achievement and instructional improvement.
- On a regularly scheduled basis, the State Board of Education shall complete field assessments of the implementation of local EERA plans.

- On an annual basis, test results and low income data shall be used to determine the distribution of available state funds to support remedial assistance programs.

The purpose of this report is to provide an overview and summary of the implementation of the eighth-grade Connecticut Mastery Test. The mastery test assesses how well each student is performing on those skills identified by content experts and practicing educators as important for students entering eighth grade to have mastered.

FOREWORD

The Connecticut Mastery Test is a critical element in Connecticut's agenda to attain educational equity and excellence. The testing program assesses essential skills in mathematics and language arts, including listening, reading and writing, for grades four, six and eight students. Student achievement is measured and reported in relation to specific learning objectives that students reasonably can be expected to have mastered by the end of grades three, five and seven.

The Connecticut Mastery Test provides valuable educational information which can be used to improve instruction and elevate the achievement of Connecticut's students. The test results are reported in a manner that identifies how well each student is succeeding in relation to clearly defined and meaningful standards. It is my hope that educators throughout the state use the results as a tool to gain a better understanding of the learning occurring in our classrooms and the ways to increase learning in the future.

Connecticut is committed to an annual cycle of assessment in order to promote:

- the monitoring of individual student achievement;
- the evaluation of instructional program effectiveness;
- educational goal setting; and
- remedial assistance program improvement.

I encourage you to carefully review the mastery test results provided at the student, classroom and district levels. The Department is prepared to assist local school districts in the areas of curriculum and professional development and test interpretation.

Gerald N. Tirozzi
Commissioner of Education

In the spring of 1984, the Connecticut General Assembly amended the Education Evaluation and Remedial Assistance (EERA) legislation to authorize the creation of mastery tests in the basic skill areas of mathematics and language arts, including listening, reading and writing skills. The tests were to be established for grades four, six and eight.

The goals of the mastery testing program are:

- earlier identification of students needing remedial education;
- testing a more comprehensive range of academic skills;
- setting high expectations and standards for student achievement;
- more useful test achievement information about students, schools and districts;
- improved assessment of suitable equal educational opportunities; and
- continual monitoring of students in grades four, six and eight.

The type of test that best addresses these goals is a criterion-referenced test. Criterion-referenced tests are designed to assess the specific skill levels of students. Such tests usually cover relatively small units of content. Their scores have meaning in terms of what each student knows or can do. Test results are used to identify the areas of strengths and weaknesses of each student.

MASTERY TEST CONTENT

The CMT is designed to assess essential language arts/reading, writing and mathematics skills that can reasonably be expected to be mastered by most students by the end of the third, fifth and seventh grades. The specific skills to be tested within these content areas were identified by committees of educators from throughout the state. In addition, surveys were sent to many teachers, administrators and parents to determine the appropriateness of these skills for the Mastery Test. A complete description of the procedures used in the development of the eighth-grade CMT can be found in Appendix A (p. 33).

Mathematics

The Mathematics Advisory Committee recommended a grade eight mathematics test that assessed thirty-six (36) specific objectives in four domains: (1) Conceptual Understanding; (2) Computational Skills; (3) Problem Solving/Applications; and (4) Measurement/Geometry. There are four test items per objective for a total of 144 items on the mathematics test. A detailed list of domains and objectives is given in Appendix B (p. 37).

Language Arts

The Language Arts Advisory Committee recommended a 111-item grade eight language arts test that covers two domains: Reading/Listening and Writing/Study Skills. Eleven (11) objectives were recommended by the Language Arts Advisory Committee.

The general content area of Reading/Listening consisted of narrative, expository and persuasive passages on a variety of topics measuring a student's ability in: (1) Literal Comprehension; (2) Inferential Comprehension; and (3) Evaluative Comprehension. Audiotapes were used to assess students' listening comprehension ability in: (1) Literal Comprehension and (2) Inferential and Evaluative Comprehension. The Degrees of Reading Power (DRP) test was also used to assess reading. The DRP test included eleven (11) passages and seventy-seven (77) test items. It was designed to measure a student's ability to understand nonfiction English prose at different levels of reading difficulty.

The general content area of Writing/Study Skills consisted of three components. First, there was a writing sample for direct, holistic assessment of student writing. Each student was asked to write a composition on a designated topic. Writing was then judged on a student's demonstrated ability to convey information in a coherent and organized fashion. Second, the mechanics of good writing, which was defined as (1) Capitalization and Punctuation, (2) Spelling, (3) Agreement and (4) Tone, were assessed in a multiple-choice format. Third, Study Skills were assessed through Locating Information and Note-taking/Outlining. Locating Information (Schedules, Maps, Index and Reference Use), measured a student's ability to find and use information from the sources listed. Note-taking and Outlining tested a student's ability to take notes and report information as well as complete missing outline information. A detailed list with objectives and number of items per objective is given in Appendix C (p. 41).

FUTURE DEVELOPMENT

The Connecticut State Department of Education (CSDE), in conjunction with content consultants and various CMT advisory committees, has begun the development of the second generation of the CMT. The current CMT is under review to determine which skills are appropriate for inclusion on the new test. In addition, new content areas and other forms of assessment techniques (e.g., performance assessment and short-answer questions) are being considered. It is anticipated that the second generation CMT will be administered for the first time statewide in the fall of 1993. Items for this set of exams will initially be piloted in the fall of 1991 followed by a second pilot in the fall of 1992.

SETTING MASTERY STANDARDS BY OBJECTIVE

The essence of the Connecticut Mastery Test (CMT) is the establishment of a specific mastery standard against which each student's knowledge and competency on each objective can be compared. The mastery test incorporates appropriate and challenging expectations for Connecticut public school students. The goal of the CMT Program is for each student to achieve mastery of all objectives. The objectives being tested were identified as appropriate and reasonable for students at each of the grades tested. These tests are designed to measure a student's performance on these specific objectives.

The process of establishing the mastery standards by objective used a statistical method that required two decisions to be utilized. The first decision defined a student who mastered a particular skill as one who had a 95% chance of correctly answering each item within the objective. The second decision was that the specific standard for each objective would identify 99% of the students who mastered the skill. By applying the two decision rules stated above to a binomial distribution table, mastery standards were established for the 36 mathematics objectives and the 11 language arts objectives.

The mastery standards are as follows:

- In mathematics, for each of the 36 objectives, a student must answer correctly at least 3 out of 4 items.

- In language arts, for the 11 multiple-choice objectives with varying numbers of items, a student must answer correctly the following numbers of items:

	# ITEMS CORRECT FOR MASTERY
WRITING MECHANICS	
(1) Capitalization & Punctuation	9 out of 12
(2) Spelling	6 out of 8
(3) Agreement	11 out of 15
(4) Tone	3 out of 4
STUDY SKILLS	
(5) Locating Information	9 out of 12
(6) Note-taking and Outlining	3 out of 4
LISTENING COMPREHENSION	
(7) Literal	3 out of 4
(8) Inferential and Evaluative	12 out of 16
READING COMPREHENSION	
(9) Literal	6 out of 8
(10) Inferential	10 out of 14
(11) Evaluative	10 out of 14

No mastery standards were set for the two holistic language arts measures, neither the Degrees of Reading Power (DRP) test nor the Writing Sample, since these measures are not composed of objectives on which mastery could be assessed.

SETTING REMEDIAL (GRANT) STANDARDS

In addition to mastery standards, Section 10-14 m-r of the Connecticut General Statutes requires that the Connecticut State Board of Education establish statewide standards for remedial assistance in order to meet two responsibilities:

- to identify and monitor the progress of students in need of remedial assistance in language arts/reading and mathematics as part of the EERA field assessments; and
- to distribute EERA funds based on the number of needy students statewide, as well as for use in the Chapter 2 and Priority School District Grants.

Students who score below the remedial standard(s) are eligible for services provided for in EERA legislation. Remedial standards were established by the State Board of Education acting on the recommendations of committees that represented Connecticut citizens and educators. The standard-setting committees recommended the following remedial standards:

1. In mathematics, a student who answers fewer than 78 of the 144 items (54%) correctly is required to receive further diagnosis by the local school district and, if necessary, to be provided with remedial assistance.
2. In reading, a student whose Degrees of Reading Power (DRP) unit score is lower than 55 is required to receive further diagnosis and, if necessary, to be provided with remedial assistance.
3. In writing, a student receiving a total holistic score less than 4 is required to receive further diagnosis by the local school district and, if necessary, to be provided with remedial assistance.

The mastery and remedial standards were established by the State Board of Education on June 4, 1986. For a detailed explanation of the remedial standard-setting process, see Appendix D (p. 43).

STATEWIDE ACHIEVEMENT GOALS

In addition to mastery and remedial standards, statewide achievement goals have been established in the content areas of mathematics, reading (DRP) and writing. These goals represent high expectations and high levels of achievement for Connecticut public school students.

The achievement goals are as follows:

- In mathematics, all students must master 31 of 36 objectives tested.
- In reading, a student must score a Degree of Reading Power (DRP) unit score of 62 with 80% comprehension.
- In writing, a student must score a total holistic score of 7 on a scale of 2 to 8.

STUDENT GROWTH OVER TIME

The Connecticut Mastery Test (CMT) program is designed to provide criterion-referenced information about the level of student mastery of objectives in grades four, six and eight. However, the basic scores reported for the mastery tests do not provide a system for evaluating achievement growth from grade four to grade six to grade eight. This is so because mastery decisions are based on student performance (mastery/non-mastery) on objectives that are unique to grade level. Mastery of objectives cannot be compared directly across grade levels and tests because of the differences in the number of objectives, curriculum content and levels of difficulty. In order to make valid interpretations across grade levels, the mastery test performance must first be linked using a procedure called vertical equating.

Purpose of Vertical Equating

Vertical equating is a psychometric technique for comparing tests at all ability levels. This is accomplished by putting them on a new scale which is common to the tests. Vertical equating is based on two assumptions. The first is that learning is continuous. The second is that instruction in each area is related to increased achievement in that area. These assumptions enable test developers to create a scale score that covers a wide range of content over several grades. The type of equating that leads to the development of these "growth scales" is known as vertical equating. The development of growth scales is a common practice and has been used successfully in the development of a variety of achievement test batteries. The purpose of vertical equating is to provide one scale score system which can be used to compare performance across multiple grade levels. This score system enables test users to interpret test score information over time without altering the basic nature of the testing program. This achievement growth can be monitored over time on the basis of student performance on the CMT across grades.

Development of Vertical Scales

In order to develop a vertical scale, performance on the grade four, grade six and grade eight mastery tests was statistically linked. This was accomplished during the 1987 administration of the CMT using representative statewide samples of approximately 5,000 sixth-grade students and approximately 7,000 eighth-grade students. Each group of students at grade six and grade eight was administered the appropriate on-grade level test form of the CMT along with one below-grade level section of the CMT. Specifically, each group of eighth-grade students took the grade eight test as usual and a part of the grade six test. Likewise, each sixth-grade group took the grade six test as usual along with a section of the grade four test. Each sample of students took only one below-level section of the CMT involving approximately one hour of additional testing time. Performance on the below-level items was not counted toward the CMT scores of individual students. For each of these linking samples, item difficulty estimates were obtained for the on-grade and below-grade level items by analyzing all items together as one test. Once items from the on-grade and below-grade level tests were linked, item difficulties from each level of the CMT were adjusted to a common metric to produce the vertical scale.

Vertical scales were established in the content areas of mathematics and the reading comprehension section of the language arts test. For each grade and content area, every correct score corresponds to a specific value on a common score scale (vertical scale). Each of the vertical scales was constructed so that each scale score point represents the same theoretical achievement level whether derived from a score on the grade four test, a score on the grade six test, or a score on the grade eight test. This allows valid interpretations of growth across time using tests differing in content, length and item difficulty. All items on the mathematics and reading comprehension tests were used in the development of the vertical scales. The writing and language arts tests were not scaled because of the nature of these assessment processes. The Degrees of Reading Power (DRP) test employs DRP unit scores which are already on a common scale across grades, obviating the need for any other development. (For more information see Congero, W.J., 1989, The Development of Vertical Scales to Enhance the Evaluation of Assessment Data. Paper presented at the annual conference of the National Council of Measurement in Education, San Francisco, CA. This paper is available through the Student Assessment and Testing Unit of the Bureau of Evaluation and Student Assessment.)

Scaled scores can be used to measure growth over time because CMT scores from all three grade levels have been placed on a common scale. These scales provide a means of monitoring students' academic progress from grade to grade. Before the scales were developed, it was difficult to assess the performance of groups of test takers as they moved from grade to grade because of differences in test length, curriculum content covered and levels of difficulty on the fourth-, sixth- and eighth-grade tests.

Since students who took the fourth-grade test in 1987 subsequently took the sixth-grade test in 1989, change in test performance can be assessed across two years' time. Similarly, change in performance can be assessed for 1990 sixth graders who took the grade four test in 1988. A summary of the overall growth in performance for these two groups of students in the content areas of mathematics and reading comprehension can be found in the 1990-91 Grade 6 Summary and Interpretations Manual. Students who took the fourth-grade tests in 1985 subsequently took the sixth-grade test in 1987 and the eighth-grade test in 1989. Similarly, students who took the fourth-grade test in 1986 subsequently took the sixth-grade test in 1988 and the eighth-grade test in 1990. A summary of the overall growth in performance for these groups of students in the content areas of mathematics and reading comprehension can be found in the 1990-91 Grade 8 Summary and Interpretations Manual.

NORMATIVE INFORMATION

The CMT program is designed to provide detailed information about fourth-, sixth- and eighth-grade students' mastery of specific skills and objectives. The provision of national norms with CMT results is intended to enhance the usefulness and flexibility of mastery test information by offering a bridge to conventional norm-referenced testing programs. The decision to provide normative information with the CMT does not change the essential purposes of our criterion-referenced testing program. The CMT will continue to be used for diagnostic and other instructional purposes with results reported at the student, classroom, school, district and state levels.

In particular, national norms provide greater:

- **Test Economy.** By providing national norms with CMT results, school districts can eliminate their standardized testing programs at these grades, thus saving money and undue testing time while retaining normative data.

- **Test Efficiency.** Federal compensatory programs require the systematic testing of students using instruments that can provide normative information. Because norms are provided with the CMT, school districts will not have to "double test" compensatory program students. This service allows for increased instructional time for these students.

- **Test Interpretability.** Criterion-referenced test (CRT) programs may be criticized because the public has difficulty interpreting CRT performance. National norms will assist in the interpretation of CMT performance by providing a traditional benchmark with which the public is familiar.

Development of Norms

In order to provide estimated national norm-referenced data based on CMT performance, items on the CMT were statistically linked to items on a nationally norm-referenced test (NRT). Content-appropriate items from a nationally normed host test were included on the CMT to provide a common referent to both tests. Test equating procedures were then used to link CMT items with the normed test by placing all the items on a common scale. With this linkage in place, estimates of how the performance of Connecticut students compares to a national sample could be made. The NRT used to accomplish this task was the sixth edition of the Metropolitan Achievement Test (MAT-6), normed in 1986. The equating of the CMT to the MAT-6 enabled group summary scores on the CMT to be interpreted relative to the MAT-6 nationally representative normative data.

The CMT was initially equated to the MAT-6 during the pilot testing phase to investigate the relationship of the test content and material between the two tests and the differential nature of the items included on the CMT and MAT-6. In addition, these preliminary data provided a benchmark by which the stability of the link could be monitored over time. The stability issue is monitored each year by readministering MAT-6 items during CMT administrations using representative statewide samples. The comparison of these data with prior information provides the information necessary to identify the instructional effects on student performance over time and to update the CMT/MAT-6 link as appropriate. This monitoring and updating ensures the continued accuracy of the normative estimates.

RESEARCH OPTIONS PROGRAM

The Research Options Program is a free service provided by the Connecticut State Department of Education (CSDE) to help educators and educational policymakers gain access to the extensive information available from the Connecticut Mastery Test (CMT). Participation in the Research Options Program is completely voluntary.

The Research Options Program allows educators and educational policymakers (i.e., superintendents, principals, researchers, evaluators and school board members) to benefit from customized research investigations designed to suit their individual needs or questions. Many school districts have taken advantage of the Research Options Program in previous years to successfully address special local concerns.

The Research Options Program provides a number of ways of examining student achievement, as measured by the CMT. For example, one method is to compare aggregated student test scores obtained from the CMT in two or more categories of interest. Categories might include males and females, special program students compared to non-special program students, or any other comparison. These reports include tables that show the proportion of students mastering each objective, average number of objectives mastered and the achievement indicators for students on each component of the test under consideration. These breakdowns allow district personnel to directly compare the performance of specific groups of students. In addition, graphics are provided, as appropriate, with each report. Graphs help simplify the task of interpreting data and convey information in a compact visual format.

The Research Options component of the CMT has grown a great deal since the first study was performed on the Connecticut Basic Skills Proficiency Test almost a decade ago. This year, test directors and evaluators in 28 districts took advantage of this valuable resource to address questions of local interest. In addition, statewide programs such as Bilingual Evaluation, Chapter I and School Effectiveness have used the research options to obtain useful information for participants in over 100 districts. [For more information see Mooney, R.F., 1989, The Connecticut Mastery Test Research Options Program: The Application of State Criterion-Referenced Test Reports for Local Research Needs. Paper presented at the annual conference of the National Council of Measurement in Education, San Francisco, CA. See also the Research Options Handbook (1988) provided by the Connecticut State Department of Education. (These references are available through the Student Assessment and Testing Unit of the Bureau of Evaluation and Assessment.)]

TEST ADMINISTRATION AND SCORING

The regular administration of the Connecticut Mastery Test (CMT) for 1990 was conducted using Form D during a three-week period commencing on September 24, 1990. Test sessions were conducted by local school district staff under the supervision of local test coordinators who had been trained by staff of the Connecticut State Department of Education (CSDE) and The Psychological Corporation (TPC). A student who took all subtests participated in approximately eight hours of testing.

The Grade 8 Connecticut Mastery Test had eight testing sessions.

- Mathematics I (60 minutes)
- Mathematics II (60 minutes)
- Mathematics III (60 minutes)
- Writing Sample (45 minutes)
- Degrees of Reading Power (70 minutes)
- Reading Comprehension (60 minutes)
- Listening Comprehension (45 minutes)
- Writing Mechanics/Study Skills (60 minutes)

At the conclusion of the make-up testing period, answer booklets were returned to TPC in San Antonio, Texas for optical scanning and scoring, and then organized in preparation for holistic scoring workshops.

Scoring of the Language Arts and Mathematics Tests

The mathematics and language arts multiple-choice tests were machine-scored by TPC. Mathematics scores were reported for the total test as well as for mastery by each objective. Language arts scores were reported for mastery of each objective only.

Scoring of the Writing Sample

Every writing sample was scored by Connecticut educators using a technique known as the holistic scoring method. Holistic scoring is an impressionistic and quick scoring process that rates written products on the basis of their overall quality. It relies upon the scorers' trained understanding of the general features that determine distinct levels of achievement on a scale appropriate to the group of writing pieces being evaluated. All participants received on-site training and were required to demonstrate a clear understanding of the scoring criteria prior to actually scoring student essays. Each paper receives a final score between 2 and 8, where 2 represents a poor paper and 8 represents a superior paper. A thorough description of the training and scoring process, including sample papers representing different holistic scores, is presented in Appendix E (p. 49).

Analytic Scoring

All papers receiving holistic scores at or below the remedial standard of 4 also received analytic scoring in four categories (traits): focus, organization, support/elaboration and conventions. Analytic scoring is a thorough, trait-by-trait analysis of those components of a writing sample that are considered important to any piece of writing in any context. This scoring procedure can provide a comprehensive picture of a student's writing performance if enough traits are analyzed. It can identify those traits that make a piece of writing effective or ineffective. However, the traits need to be explicit and well defined so that the raters understand and agree upon the basis for making judgments about the writing sample. The analytic rating guide and sample marker papers for the analytic scoring are presented in Appendix F (p. 61).

Scoring of the Degrees of Reading Power (DRP) Test

The DRP multiple-choice test was machine-scored by TPC. The scores reported are in DRP units. These scores identify the difficulty or readability level of prose that a student can comprehend. This makes it possible to match the difficulty of written materials with student ability. These scores can be better interpreted by referring to the readability levels of some general reading materials as shown below:

- Elementary textbooks (grades 7 through 9) - 54-65 DRP Units

- Personality Section - teen magazines - 55 DRP Units
- Adult General Interest Magazines - fiction - 60 DRP Units

A much more extensive list of reading materials is contained and rated in the Readability Report, Seventh Edition, published by The College Board.

The conversion between DRP unit scores and raw scores can be made from the tabled values obtainable through the Student Assessment and Testing Unit of the Bureau of Evaluation and Student Assessment.

SCHOOL DISTRICT TEST RESULTS REPORTING

The CMT school district reports are designed to provide useful and comprehensive test achievement information about districts, schools and students. Four standard test reports are generated to assist superintendents, principals, teachers, parents and students to understand and use criterion-referenced test results. Appendix G (p. 67) presents samples of the district, school, class and parent/student diagnostic score reports.

FALL 1990 STATEWIDE TEST RESULTS

The Grade 8 Connecticut Mastery Test provides a comprehensive evaluation of student performance on specific skills that Connecticut educators feel are important at the beginning of eighth grade. The mastery test's greatest instructional utility lies in its identification of areas of student weakness and strength. These results profile the statewide results. Each school district also receives a full complement of reports that identify patterns of academic strength and weakness at the district, school, classroom and individual student levels.

Chart 1 (p. 12) gives a statewide summary of the average number of objectives mastered (mathematics and language arts), average writing and reading scores, the number of students scored, the number of students scoring at or above the remedial standard (where applicable) and the percent of students scoring at or above the remedial standard (where applicable).

The following are highlights of the 1990 Grade 8 CMT results:

MATHEMATICS

- Eighth graders mastered an average of 25.7 of the 36 objectives tested, up slightly from last year's figure of 25.3.
- A total of 87.8% of the students scored at or above the remedial standard, equaling last year's figure of 87.8%.
- A total of 37% of the students scored at or above the mathematics goal, an increase from last year's figure of 34%.

LANGUAGE ARTS

- Eighth graders mastered an average of 8.4 of the 11 objectives tested, up slightly from last year's figure of 8.0.

WRITING

- Eighth graders averaged 5.5 on a scale of 2 to 8, the same as the previous year.
- A total of 93.2% of the students scored at or above the remedial standard, up from last year's figure of 91.7%.
- A total of 27% of the students scored at or above the writing goal representing no change from last year's figure of 27%.

READING

- Eighth graders averaged 63 units on the Degrees of Reading Power (DRP) test, equaling last year's figure.
- A total of 79.7% of the students scored at or above the remedial standard, down slightly from last year's figure of 79.8%.
- A total of 62% of the students scored at or above the reading goal representing no change from last year's figure of 62%.

CHART 1
1990 CONNECTICUT MASTERY TEST RESULTS
GRADE 8 STATEWIDE SUMMARY

SUBJECT	AVERAGE NUMBER OF OBJECTIVES MASTERED	NUMBER OF STUDENTS SCORED	STUDENTS AT OR ABOVE REMEDIAL STANDARD*	
			NUMBER	PERCENT
MATHEMATICS	25.7	30,285	26,601	87.8%
LANGUAGE ARTS	8.4	29,898	———	———
	AVERAGE HOLISTIC SCORE			
WRITING SAMPLE	5.5	30,261	28,193	93.2%
	AVERAGE DRP UNIT SCORE			
READING	63	30,403	24,240	79.7%

* MATHEMATICS REMEDIAL STANDARD = 78 ITEMS CORRECT
WRITING REMEDIAL STANDARD = 4
READING REMEDIAL STANDARD = 55 DRP UNITS

Mathematics

In mathematics, eighth graders mastered an average of 25.7 objectives, or 71.4%, of the 36 objectives tested. While the state's goal is that all students master every objective, an interim goal of 31 of the 36 objectives has been established which represents a high level of mathematics achievement. Chart 2 (p. 15) illustrates that, statewide, students demonstrated strength (85% or more students achieving mastery) in the conceptual understanding objectives of rounding whole numbers; identifying points on number lines, scales and grids; computational skills objectives involving addition, subtraction, multiplication and division of whole numbers and decimals; and using a calculator to add, subtract, multiply and divide. However, students did not perform as effectively (fewer than 50% of the students achieving mastery) on objectives that require higher-level thinking-- that is, solving problems involving measurement, measuring and determining perimeters and areas and making measurement conversions within systems. Students also performed poorly on some computational skills, such as multiplying fractions and mixed numbers.

Chart 3 (p. 16) illustrates the percent of students, statewide, achieving mastery on selected numbers of objectives. This chart indicates that the percent of students mastering fewer than 31 objectives has generally declined from 1986 to 1990. Furthermore, during that same time period, the percent of students mastering at least 31 objectives has increased from 27% in 1986 to 37% in 1990.

Students getting fewer than 78 questions correct on the 144-question mathematics section (12.2%) were identified as needing further diagnosis and possible remedial instruction.

There continues to be a consistent pattern throughout the mathematics subtests of student strengths in primarily computational skills and easy one-step routine applications. These strengths are offset by an equally clear pattern of student weaknesses on higher order objectives involving more than routine conceptual understanding or simple application of skill. For example, students are consistently strong in their ability to recall number facts and compute with whole numbers. However, there is consistent weakness in relating numbers to pictures, working with fractions, making estimates and solving 2-step or non-routine problems.

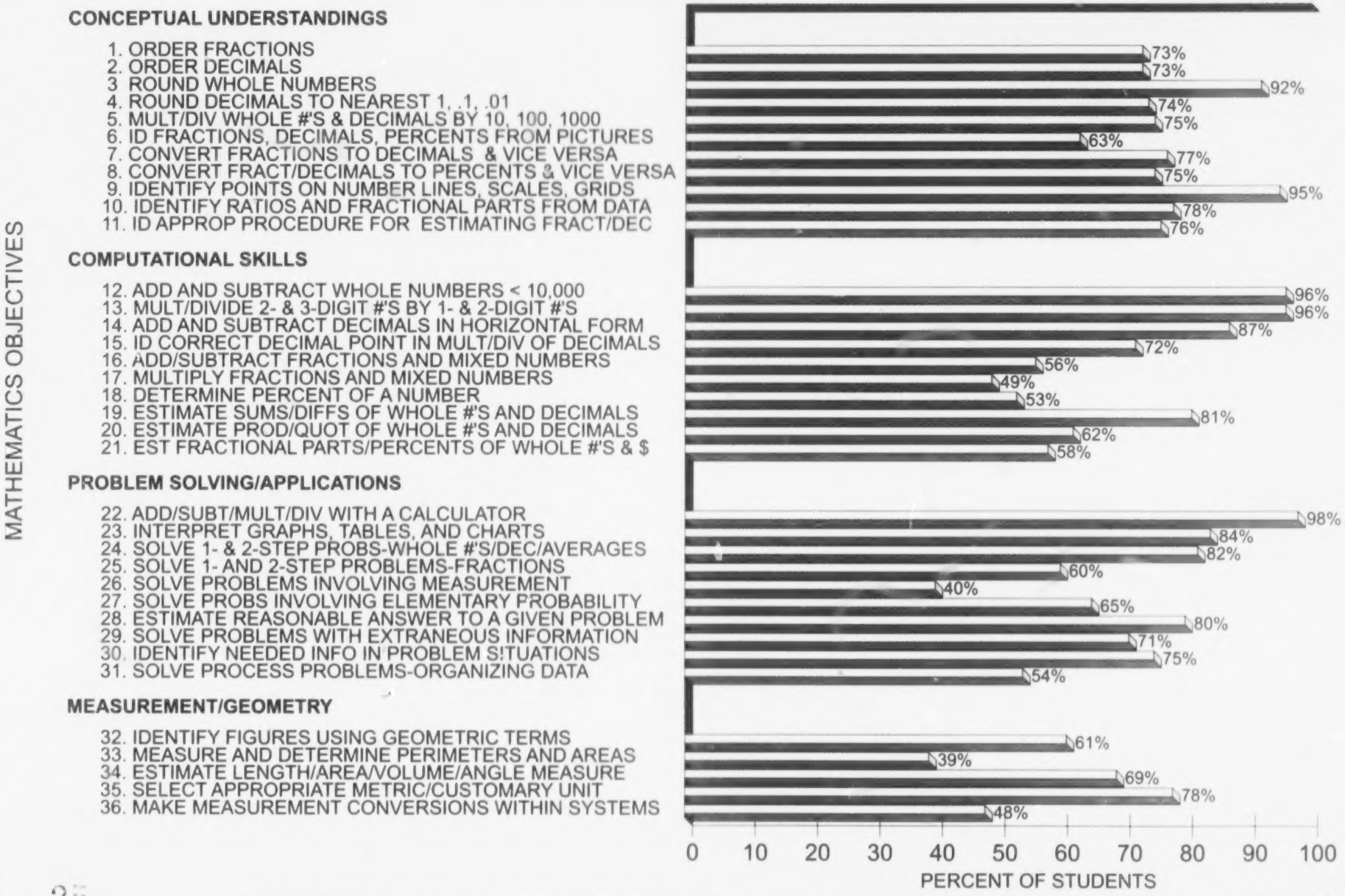
Language Arts

In language arts, eighth-grade students averaged 8.4 objectives, or 76.4%, of the 11 objectives tested. The state's goal is that all students master every objective. Chart 4 (p. 17) illustrates that students did reasonably well on writing mechanics and literal reading comprehension. However, weaknesses were found in the higher order objectives of inferential and evaluative reading comprehension and in listening comprehension. These results indicate that students need to learn more effective comprehension strategies while simultaneously being exposed to a wide variety of reading selections.

In writing, eighth-grade students averaged 5.5 points on a scale of 2 through 8. The state's goal is that all students be able to produce an organized, well-supported piece of writing, that is, a holistic score of 7 or 8. Chart 5 (p. 18) illustrates that 27% of the students produced an organized, well-supported piece of writing (scores of 7 or 8), and an additional 47% produced a paper which is generally well organized (scores of 5 or 6). A total of 20% of the students scored a 4, which indicates minimally proficient writing, while the remaining 7% scored below the remedial standard (scores of 2 or 3).

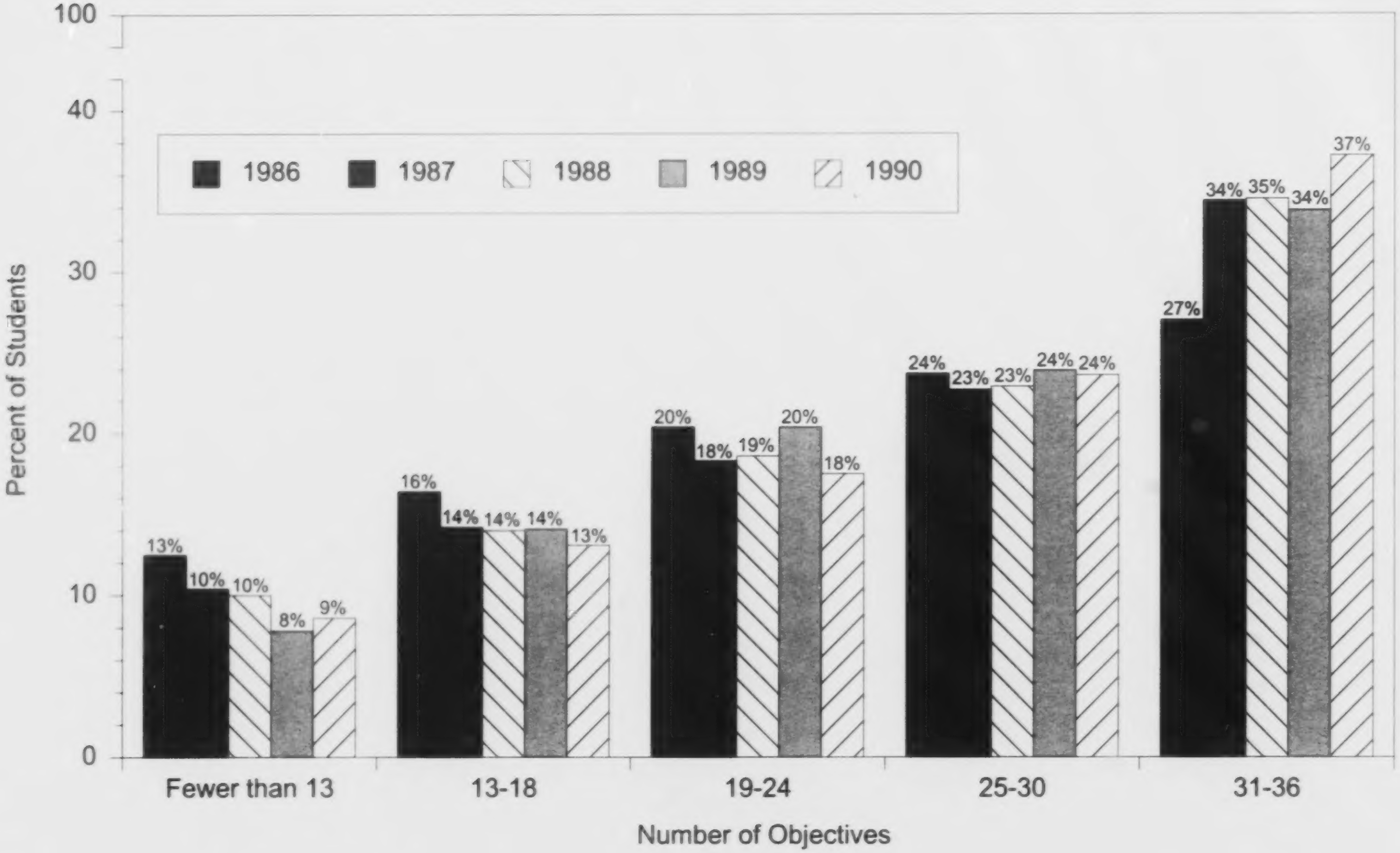
In reading (Degrees of Reading Power test), eighth-grade students averaged 6[illegible] units on a scale of 15 through 99. The state's goal is that all students be able to read with high comprehension those materials typically used at the eighth grade or above; that is, at least 62 on the DRP unit scale. Chart 6 (p. 19) illustrates that 62% of the students scored at least 62 on the DRP score scale, 17% scored between 55 and 61 and 20% scored below the remedial standard of 55. The average score of 63 suggests that the typical Connecticut eighth grader can read and comprehend materials normally used up to grade eight. To improve reading performance, more emphasis needs to be placed on reading nonfiction materials during the primary and intermediate grades.

CHART 2
MATHEMATICS: PERCENT OF STUDENTS ACHIEVING MASTERY FOR EACH OBJECTIVE



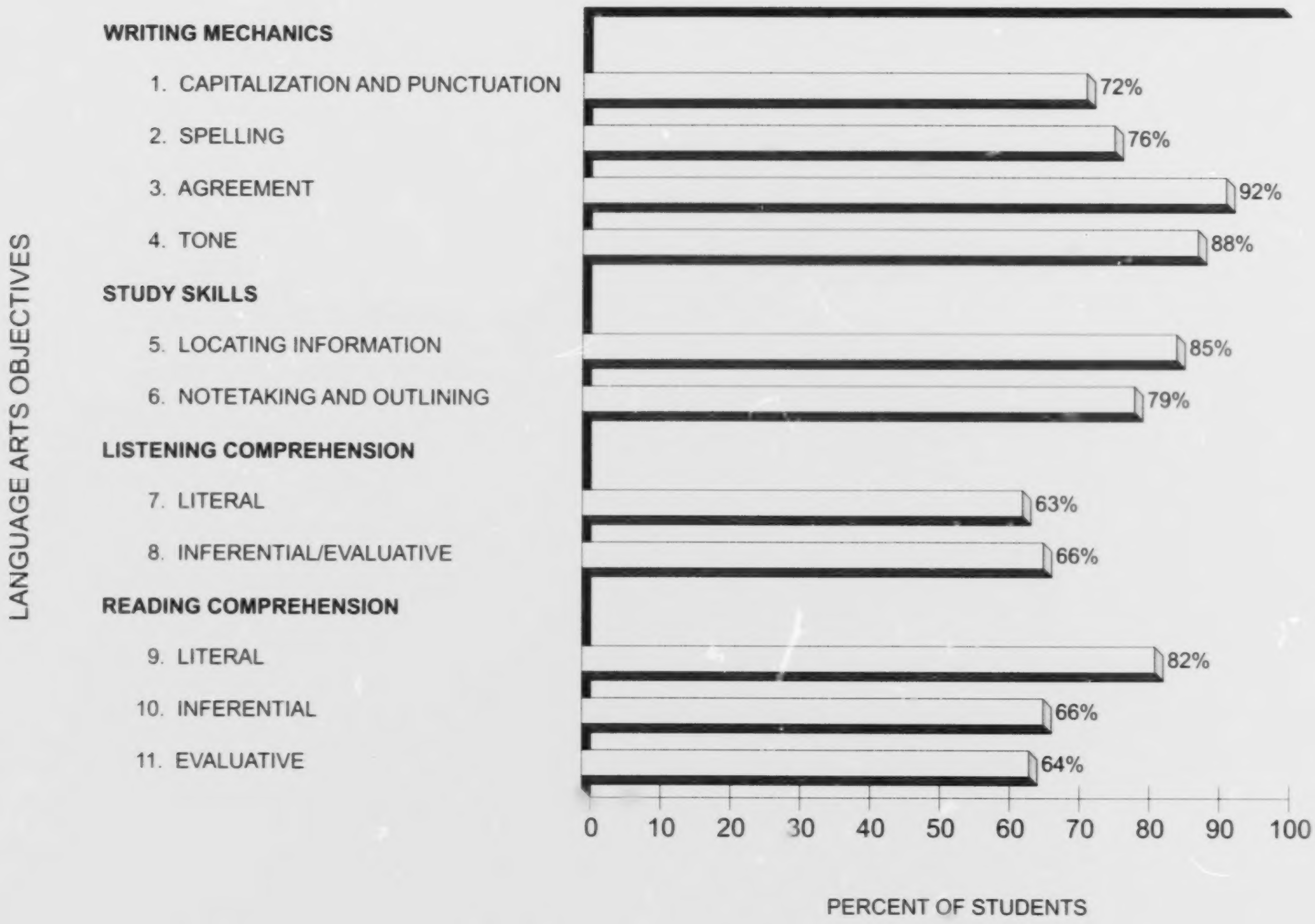
This bar chart illustrates the percent of students, statewide, who mastered each of the 36 mathematics objectives.

CHART 3
MATHEMATICS: COMPARISON OF PERCENT OF STUDENTS ACHIEVING MASTERY ON SELECTED NUMBERS OF OBJECTIVES FOR 1986 THROUGH 1990



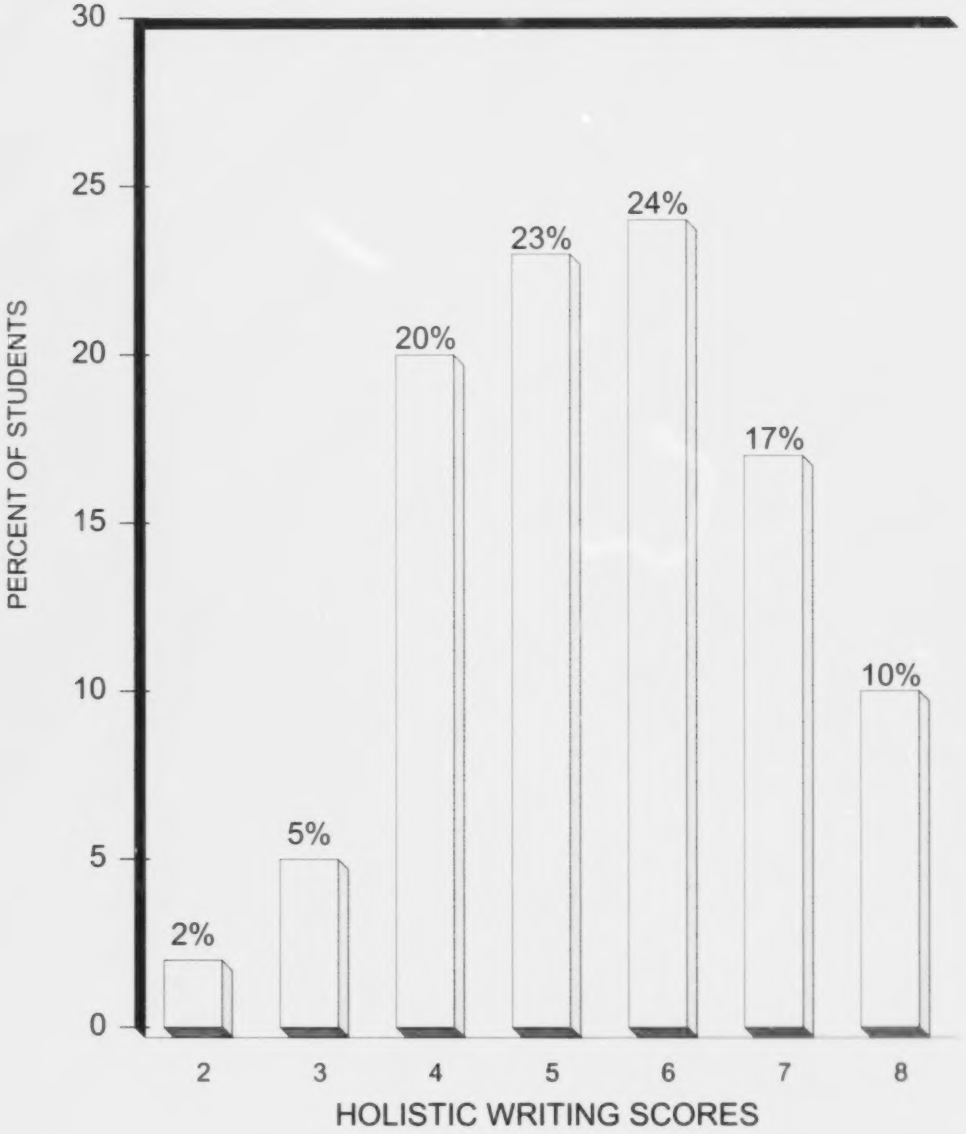
This bar chart illustrates the percent of students, statewide, whose total numbers of objectives mastered fell within one of the indicated ranges.

CHART 4
LANGUAGE ARTS: PERCENT OF STUDENTS ACHIEVING MASTERY FOR EACH OBJECTIVE



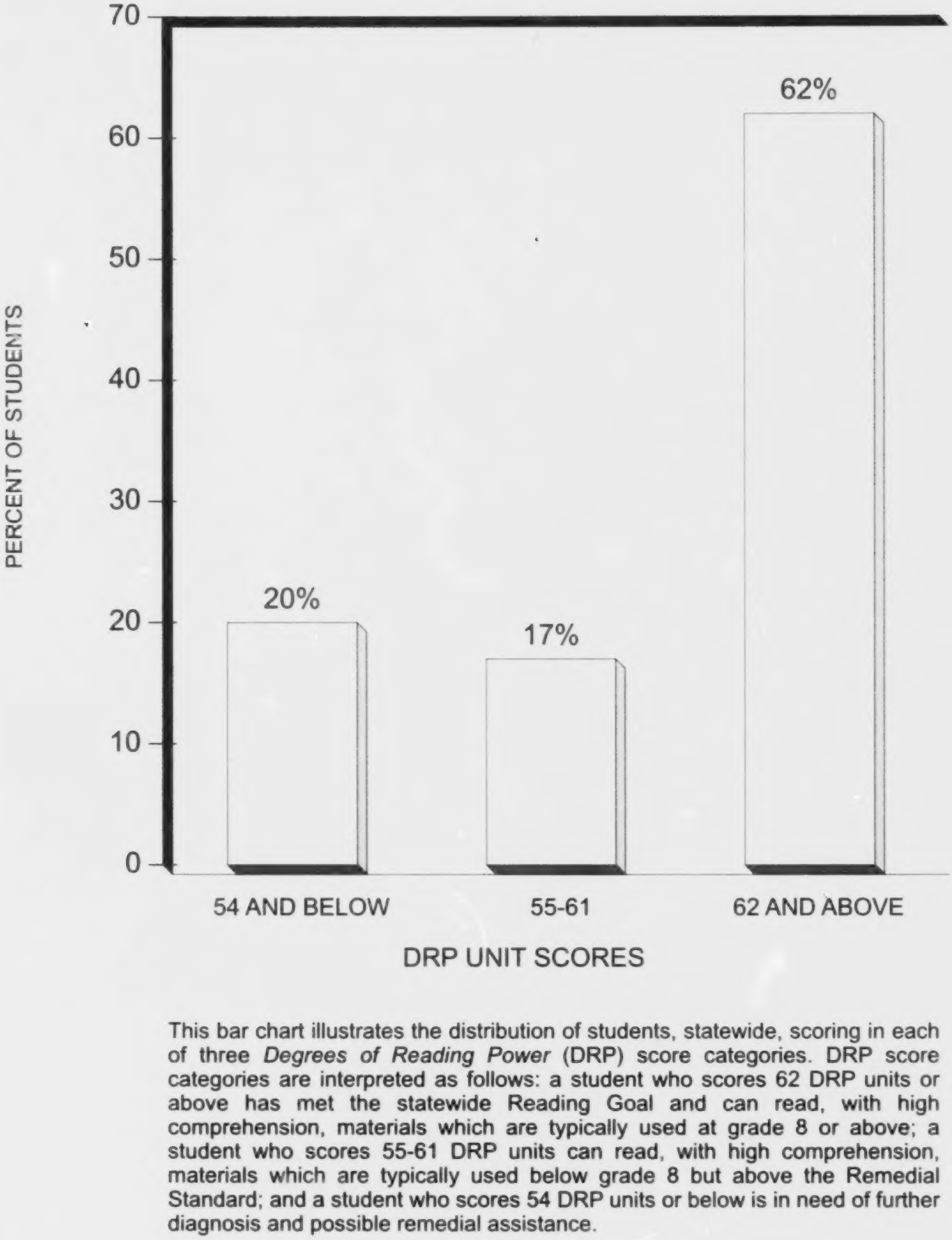
This bar chart illustrates the percent of students, statewide, who mastered each of the eleven language arts objectives.

CHART 5
WRITING SAMPLE: PERCENT OF STUDENTS AT EACH SCORE POINT



This bar chart illustrates the distribution of students who received each *holistic writing* score, statewide. Holistic writing scores are interpreted as follows: a student who scores 7 or 8 has produced a paper which is well written with developed supportive detail; a student who scores 5 or 6 has produced a paper which is generally well organized with supportive detail; a student who scores 4 is minimally proficient; and a student who scores 2 or 3 is in need of further diagnosis and possible remedial assistance.

CHART 6
DEGREES OF READING POWER® (DRP)®: PERCENT OF STUDENTS AT SELECTED RANGES OF DRP UNIT SCORES



This bar chart illustrates the distribution of students, statewide, scoring in each of three *Degrees of Reading Power* (DRP) score categories. DRP score categories are interpreted as follows: a student who scores 62 DRP units or above has met the statewide Reading Goal and can read, with high comprehension, materials which are typically used at grade 8 or above; a student who scores 55-61 DRP units can read, with high comprehension, materials which are typically used below grade 8 but above the Remedial Standard; and a student who scores 54 DRP units or below is in need of further diagnosis and possible remedial assistance.

COMPARISON OF 1986 THROUGH 1990 TEST RESULTS

Charts 7-12 (pp. 21-26) address the comparison of the 1986 through 1990 test results. Charts 7 (p. 21), 10 (p. 24) and 11 (p. 25) present a comparison of statewide average scores on the four subtests, a comparison of students scoring at or above the remedial standard, and a comparison of the percent of students scoring at or above the statewide goals, respectively. The remaining three charts provide a comparison of the percent of students achieving mastery in each mathematics objective (Chart 8, p. 22) and each language arts objective (Chart 9, p. 23), and a comparison of student achievement in relation to the remedial standards (Chart 12, p. 26).

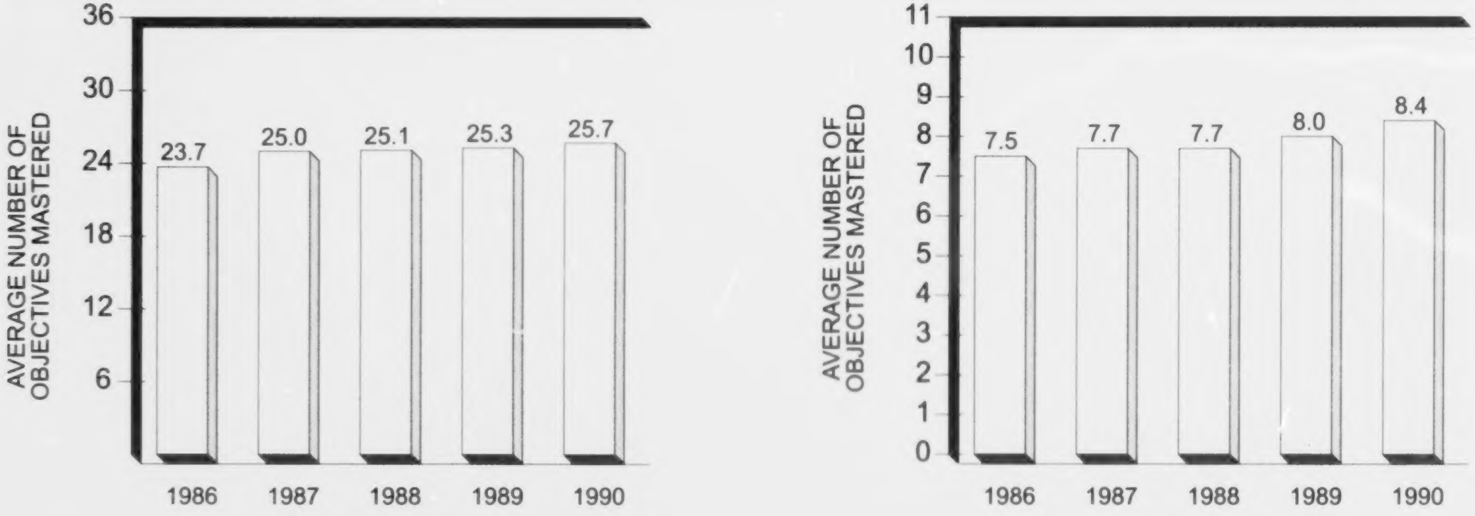
Chart 7 (p. 21) shows that the statewide average scores increased in all areas tested when 1989 results are compared to 1986 results. In mathematics, the average number of objectives mastered increased from 23.7 in 1986 to 25.7 in 1989. Mathematics scores have increased slightly each year from 1986 to 1989 indicating a positive trend. The average DRP unit score has increased two DRP unit points, moving from 61 in the initial assessment in 1986 to 63 in 1990. The average number of language arts objectives mastered has increased from 7.5 objectives in the initial 1986 assessment to 8.4 in 1990. In writing, the average holistic score has risen from 5.0 in 1986 to 5.5 in 1990.

Chart 8 (p. 22) lists the percent of students at mastery for each of the 36 mathematics objectives. From 1986 to 1990, 30 objectives have shown a gain in percent of students at or above mastery, 4 have declined and 2 are unchanged. A comparison of the 1990 and 1986 results shows large gains (at least 10 percentage points) in the percent of students meeting the mastery standard in the following objectives: ordering fractions and decimals, identifying points on number lines, scales and grids; identifying appropriate procedures for estimating fractions and decimals; identifying correct decimal point in multiplication/division of decimals; adding and subtracting fractions and mixed numbers; interpreting graphs, tables and charts; and making measurement conversions within systems.

Chart 9 (p. 23) lists the percent of students at mastery for each of the 11 language arts objectives. From 1986 to 1990, 10 objectives have shown a gain in percent of students at or above mastery, and 1 objective has shown no gain. When 1990 results are compared with 1986, areas which showed large gains (at least 10 percentage points) in the percent of students at mastery are: spelling, agreement and tone in writing mechanics; and literal and inferential reading comprehension.

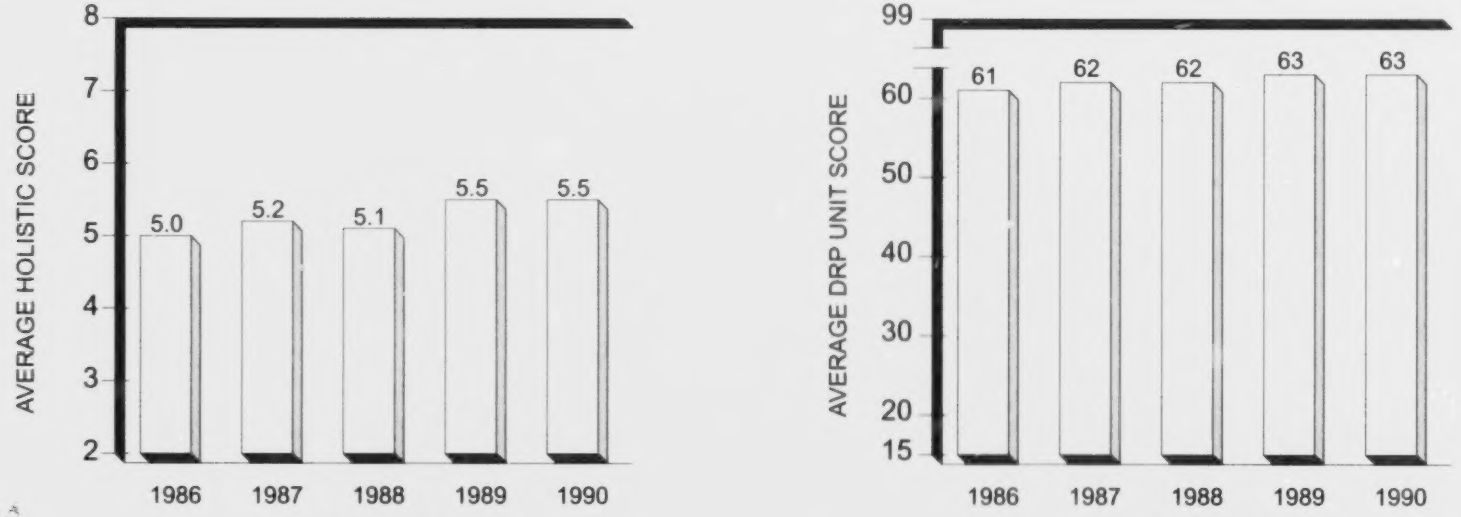
Chart 10 (p. 24) compares the percent of students who scored at or above the remedial standard in mathematics, writing and reading (DRP) for 1986 through 1990. In each content area there has been a gain in the percent of students meeting the remedial standard from 1986 to 1990. The remedial standard for mathematics is 78 out of 144 items correct. There was a 5 percentage point increase in mathematics performance at or above the remedial standard from 1986 (83%) to 1990 (88%). The remedial standard for writing is 4 on a scale from 2 to 8. A 10 percentage point increase in writing performance at or above the remedial standard occurred from 1986 (83%) to 1990 (93%). The remedial standard for reading (DRP) is 50 DRP units. A 7 percentage point increase in performance at or above the remedial standard was reported from 1986 (73%) to 1990 (80%).

CHART 7
COMPARISON OF STATEWIDE AVERAGE SCORES FOR 1986 THROUGH 1990



MATHEMATICS

LANGUAGE ARTS



WRITING

READING

CHART 8

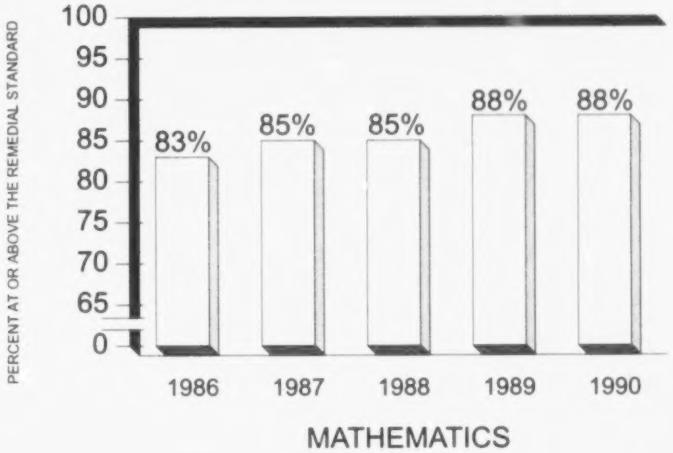
MATHEMATICS: COMPARISON OF THE PERCENT OF STUDENTS ACHIEVING MASTERY IN EACH OBJECTIVE FOR 1986 THROUGH 1990

OBJECTIVE	PERCENT OF STUDENTS AT MASTERY					PERCENTAGE POINT GAIN FROM 1986 TO 1990
	1986	1987	1988	1989	1990	
CONCEPTUAL UNDERSTANDINGS						
1. ORDER FRACTIONS	58%	57%	57%	69%	73%	15%
2. ORDER DECIMALS	58%	63%	65%	61%	73%	15%
3. ROUND WHOLE NUMBERS	87%	85%	86%	89%	92%	5%
4. ROUND DECIMALS TO NEAREST 1, .1, .01	66%	71%	72%	67%	74%	8%
5. MULT/DIV WHOLE #'S & DECIMALS BY 10, 100, 1000	67%	75%	75%	73%	75%	8%
6. ID FRACTIONS, DECIMALS, PERCENTS FROM PICTURES	58%	58%	58%	55%	63%	5%
7. CONVERT FRACTIONS TO DECIMALS & VICE VERSA	74%	70%	71%	74%	77%	3%
8. CONVERT FRACT/DECIMALS TO PERCENTS & VICE VERSA	72%	78%	78%	80%	75%	3%
9. IDENTIFY POINTS ON NUMBER LINES, SCALES, GRIDS	85%	91%	91%	95%	95%	10%
10. IDENTIFY RATIOS AND FRACTIONAL PARTS FROM DATA	85%	85%	85%	95%	78%	-7%
11. ID APPROP PROCEDURE FOR ESTIMATING FRACT/DEC	64%	78%	80%	70%	76%	12%
COMPUTATIONAL SKILLS						
12. ADD AND SUBTRACT WHOLE NUMBERS < 10,000	94%	96%	96%	95%	96%	2%
13. MULT/DIVIDE 2- & 3-DIGIT #'S BY 1- & 2-DIGIT #'S	95%	96%	96%	96%	96%	1%
14. ADD AND SUBTRACT DECIMALS IN HORIZONTAL FORM	89%	85%	85%	88%	87%	-2%
15. ID CORRECT DECIMAL POINT IN MULT/DIV OF DECIMALS	60%	76%	75%	73%	72%	12%
16. ADD/SUBTRACT FRACTIONS AND MIXED NUMBERS	39%	49%	49%	48%	56%	17%
17. MULTIPLY FRACTIONS AND MIXED NUMBERS	44%	51%	49%	47%	49%	5%
18. DETERMINE PERCENT OF A NUMBER	49%	54%	53%	54%	53%	4%
19. ESTIMATE SUMS/DIFFS OF WHOLE #'S AND DECIMALS	78%	77%	78%	87%	81%	3%
20. ESTIMATE PROD/QUOT OF WHOLE #'S AND DECIMALS	69%	70%	70%	72%	62%	-7%
21. EST FRACTIONAL PARTS/PERCENTS OF WHOLE #'S & $	51%	54%	54%	53%	58%	7%
PROBLEM SOLVING/APPLICATIONS						
22. ADD/SUBT/MULT/DIV WITH A CALCULATOR	98%	99%	98%	98%	98%	0%
23. INTERPRET GRAPHS, TABLES, AND CHARTS	67%	76%	76%	81%	84%	17%
24. SOLVE 1- & 2-STEP PROBS-WHOLE #'S/DEC/AVERAGES	78%	74%	75%	75%	82%	4%
25. SOLVE 1- AND 2-STEP PROBLEMS-FRACTIONS	54%	51%	51%	53%	60%	6%
26. SOLVE PROBLEMS INVOLVING MEASUREMENT	31%	32%	32%	33%	40%	9%
27. SOLVE PROBS INVOLVING ELEMENTARY PROBABILITY	61%	62%	63%	60%	65%	4%
28. ESTIMATE REASONABLE ANSWER TO A GIVEN PROBLEM	76%	81%	80%	83%	80%	4%
29. SOLVE PROBLEMS WITH EXTRANEOUS INFORMATION	70%	72%	73%	78%	71%	1%
30. IDENTIFY NEEDED INFO IN PROBLEM SITUATIONS	76%	79%	79%	83%	75%	-1%
31. SOLVE PROCESS PROBLEMS-ORGANIZING DATA	46%	53%	53%	55%	54%	8%
MEASUREMENT/GEOMETRY						
32. IDENTIFY FIGURES USING GEOMETRIC TERMS	57%	66%	66%	64%	61%	4%
33. MEASURE AND DETERMINE PERIMETERS AND AREAS	30%	40%	41%	37%	39%	9%
34. ESTIMATE LENGTH/AREA/VOLUME/ANGLE MEASURE	63%	69%	71%	71%	69%	6%
35. SELECT APPROPRIATE METRIC/CUSTOMARY UNIT	78%	81%	82%	76%	78%	0%
36. MAKE MEASUREMENT CONVERSIONS WITHIN SYSTEMS	32%	42%	43%	43%	48%	16%

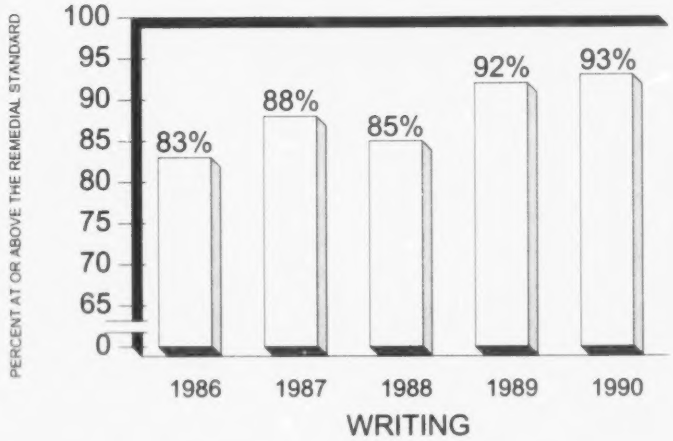
CHART 9
LANGUAGE ARTS: COMPARISON OF THE PERCENT OF STUDENTS ACHIEVING MASTERY IN EACH OBJECTIVE FOR 1986 THROUGH 1990

OBJECTIVE	PERCENT OF STUDENTS AT MASTERY					PERCENTAGE POINT GAIN FROM 1986 TO 1990
	1986	1987	1988	1989	1990	
WRITING MECHANICS						
1. CAPITALIZATION AND PUNCTUATION	72%	70%	71%	73%	72%	0%
2. SPELLING	66%	63%	63%	58%	76%	10%
3. AGREEMENT	76%	81%	81%	79%	92%	16%
4. TONE	77%	69%	70%	70%	88%	11%
STUDY SKILLS						
5. LOCATING INFORMATION	83%	88%	87%	89%	85%	2%
6. NOTETAKING AND OUTLINING	73%	71%	71%	78%	79%	6%
LISTENING COMPREHENSION						
7. LITERAL	59%	68%	67%	78%	63%	4%
8. INFERENTIAL/EVALUATIVE	62%	66%	66%	67%	66%	4%
READING COMPREHENSION						
9. LITERAL	70%	75%	75%	79%	82%	12%
10. INFERENTIAL	54%	57%	58%	58%	66%	12%
11. EVALUATIVE	57%	61%	62%	66%	64%	7%

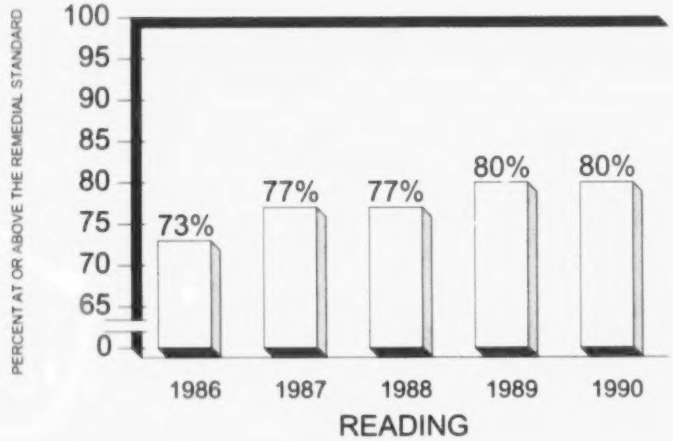
CHART 10
COMPARISON OF THE PERCENT OF STUDENTS SCORING AT OR ABOVE THE REMEDIAL STANDARD IN EACH SUBJECT AREA FOR 1986 THROUGH 1990



MATHEMATICS GROWTH SINCE 1986 5%

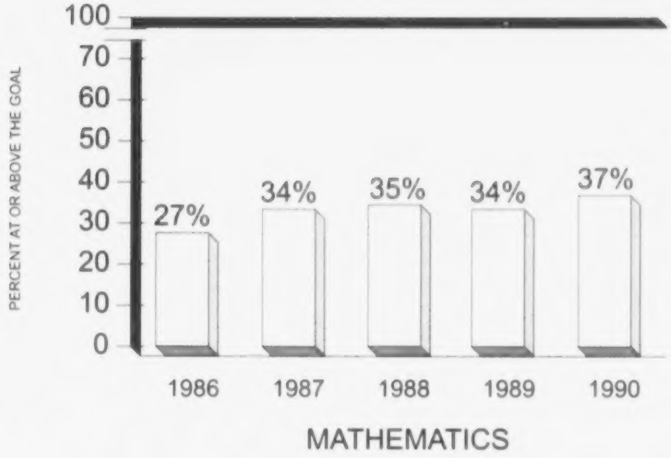


WRITING GROWTH SINCE 1986 10%



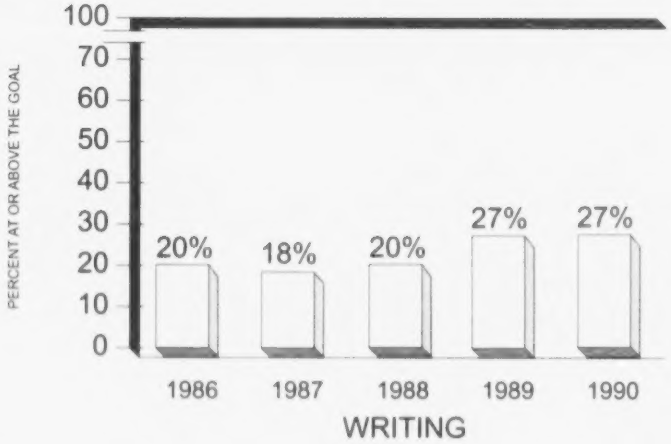
READING GROWTH SINCE 1986 7%

CHART 11
COMPARISON OF THE PERCENT OF STUDENTS SCORING AT OR ABOVE THE GOAL IN EACH SUBJECT AREA FOR 1986 THROUGH 1990



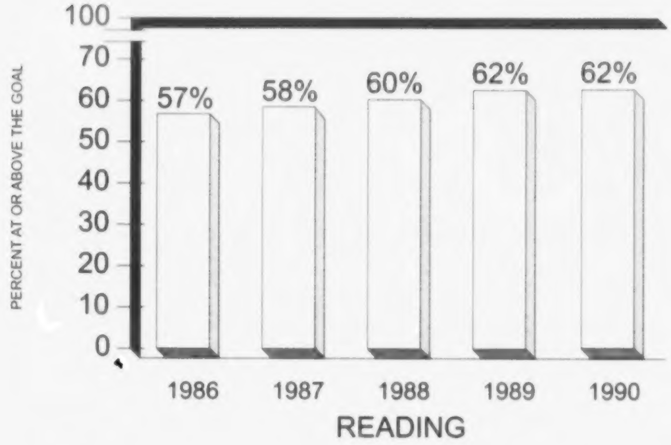
MATHEMATICS GROWTH SINCE 1986 10%

MATHEMATICS GOAL IS 31 OF 36 OBJECTIVES MASTERED



WRITING GROWTH SINCE 1986 7%

WRITING GOAL IS 7 ON A SCALE OF 2 TO 8



READING GROWTH SINCE 1986 5%

READING GOAL IS 62 DRP UNITS WITH 80% COMPREHENSION

CHART 12
COMPARISON OF STUDENT ACHIEVEMENT IN RELATION TO THE REMEDIAL STANDARDS
1986 THROUGH 1990 ADMINISTRATIONS

	1986		1987		1988		1989		1990	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
STUDENTS AT OR ABOVE THE STANDARD:										
ON ALL THREE TESTS	19,233	62.3	20,466	67.5	19,727	66.0	20,987	72.0	22,334	72.9
ON TWO OF THE TESTS	5,695	18.5	5,204	17.2	5,459	18.3	4,570	15.7	4,669	15.2
ON ONE OF THE TESTS	3,576	11.6	3,137	10.4	3,147	10.5	2,595	8.9	2,694	8.8
ON NONE OF THE TESTS	2,345	7.6	1,502	5.0	1,539	5.2	1,003	3.4	960	3.1
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
STUDENTS BELOW THE STANDARD:										
ON ALL THREE TESTS	1,914	6.2	1,248	4.1	1,241	4.2	754	2.6	733	2.4
ON TWO OF THE TESTS	3,548	11.5	3,028	10.0	3,059	10.2	2,470	8.5	2,532	8.3
ON ONE OF THE TESTS	5,729	18.6	5,169	17.1	5,487	18.4	4,574	15.7	4,652	15.2
ON NONE OF THE TESTS	19,658	63.7	20,864	68.8	20,085	67.2	21,357	73.3	22,740	74.2
NUMBER OF STUDENTS TESTED	30,849		30,309		29,872		29,155		30,657	
NUMBER OF STUDENTS BELOW REMEDIAL STANDARD ON ONE OR MORE SUBTESTS (UNDUPLICATED COUNT)	11,191	36.3	9,445	31.2	9,787	32.8	7,798	26.7	7,917	25.8

Chart 11 (p. 25) compares the percent of students scoring at or above the statewide goals in mathematics, writing and reading from 1986 through 1990. There has been a gain in the percent of students reaching the statewide goal in each of the three content areas over the five CMT administrations. In mathematics, the goal is 31 of 36 objectives mastered. There was a 10 percentage point increase in performance at or above the statewide goal from 1986 (27%) to 1990 (37%). In writing, the goal is 7 on a scale of 2 to 8. The percent of students scoring at or above the statewide standard increased from 20% in 1986 to 27% in 1990. In reading (DRP) the statewide goal is 55 DRP units with 80% comprehension. There was a 5 percentage point increase in performance at or above the goal from 1986 (57%) to 1990 (62%).

Chart 12 (p. 26) is a comparison of student achievement in relation to the remedial standards in 1986 through 1990. Over the five-year period, the percent of students at or above the remedial standard on all three tests (mathematics, reading, writing) has increased from 62.3% in 1986 to 72.9% in 1990, while the percent of students below the remedial standard on all three tests has declined from 6.2% in 1986 to 2.4% in 1990. The percent of students below the remedial standard on one or more subtests has also dropped from 36.3% in 1986 to 25.8% in 1990.

Test Results by District

Appendices H, I and J address the comparison of test scores by school district. Appendix H (p. 81) and Appendix I (p. 89) present a listing of the mathematics and language arts test results, respectively, for each Connecticut school district. Appendix J (p. 97) is a listing of the percent of students meeting the statewide goals in reading (DRP), writing and mathematics for each school district. In each appendix, school districts are listed alphabetically, followed by regional school districts. The Type of Community (TOC) designation in the second column and the Education Reference Group (ERG) designation in the third column indicate the TOC and ERG groups with which each district or school has been classified. Definitions of the TOC and ERG classifications are provided in Appendix K (p. 103) and Appendix L (p. 105), respectively. TOC and ERG summaries follow the alphabetical listings of school district results in mathematics, language arts and percent meeting the statewide goal in each content area.

The State Department of Education advises against comparing scores between and among school districts. It is more meaningful to compare district results longitudinally within each district. It is also not appropriate or meaningful to sum across the different tests and subtests for comparative purposes because of differences in test length, mastery criteria and remedial standards. These comparisons are inappropriate because it is impossible to identify, solely on the basis of this information, how the average student has performed in the districts being compared. Average scores and standard deviations provide more appropriate comparative information on how well the average student is performing, although many factors may affect the comparability of these statistics as well.

Normative Results

Normative information is provided to indicate how well the average student in Connecticut performs compared to a national sample of students. Norms have been available for the mathematics test, the language arts test and the reading comprehension test since 1987. These norms are based on links established between the CMT and the sixth edition of the Metropolitan Achievement Test (MAT-6). The norms are expressed in percentile ranks which provide estimates of group performance relative to the performance of the national MAT-6 norm group. Percentile ranks range from 1 to 99. A percentile rank of 50 represents the score that divides the norm group into two equal parts; half scoring below and half scoring above this value. Each reported percentile rank represents the performance of a nationally representative sample of students in relation to Connecticut student performance.

The following are the estimated norms for the grade eight statewide averages. In the content areas of mathematics, language arts and reading comprehension (not DRP), data are provided for the 1987 through 1990 administrations.

Grade Eight

	1987	1988	1989	1990
Mathematics	67	67	68	67
Language Arts	67	69	69	69
Reading Comprehension	57	59	61	59

Patterns in the data are summarized below.

- In each content area, the mean national percentile rankings of Connecticut students substantially exceed the national average (50th percentile rank).
- The norms for mathematics and language arts have remained similar over the four years with percentile ranks ranging from 67 to 69 in value. Reading comprehension performance is lower than either mathematics or language arts when compared to a national sample, with percentile ranks ranging from 57 to 61 over the four administrations.
- The percentile ranks within each content area are quite stable across the four years, differing in value by no more than four points.

It should be pointed out that these norms provide a way to interpret the performance of the average Connecticut student relative to a national sample. They do not address the issue of how Connecticut, as a state, compares to other states. The fact that, in 1990, the average Connecticut student is at the 67th percentile in mathematics does not mean that the state as a whole would be in the 67th percentile if it were compared to other states. A state-by-state achievement testing program has been endorsed by the Council of Chief State School Officers (CCSSO) and the National Governors' Association (NGA) and is in progress using the National Assessment of Educational Progress (NAEP) Program. Connecticut participated in the 1990 trial state assessment for mathematics at grade eight. Results of this assessment are scheduled for release June 6, 1991 at a national press conference in Washington, D.C. Connecticut intends to participate in the 1992 trial state assessment in grades four and eight.

Norms Available to Districts

Mathematics, language arts and reading comprehension norms can also be provided for groups of students at the district level. Each year all districts are notified by the CMT contractor that norms for their own districts and/or schools within their districts are optionally available. In addition, districts are offered all materials and directions to hand-calculate norms for groups of students within their districts (e.g., Chapter I students). There is no charge for either of these services. Any district that requests this information receives it directly from the CMT contractor. No district receives normative information unless it is specifically requested by the superintendent. Approximately one half of Connecticut school districts has requested norms in the past.

Longitudinal Results

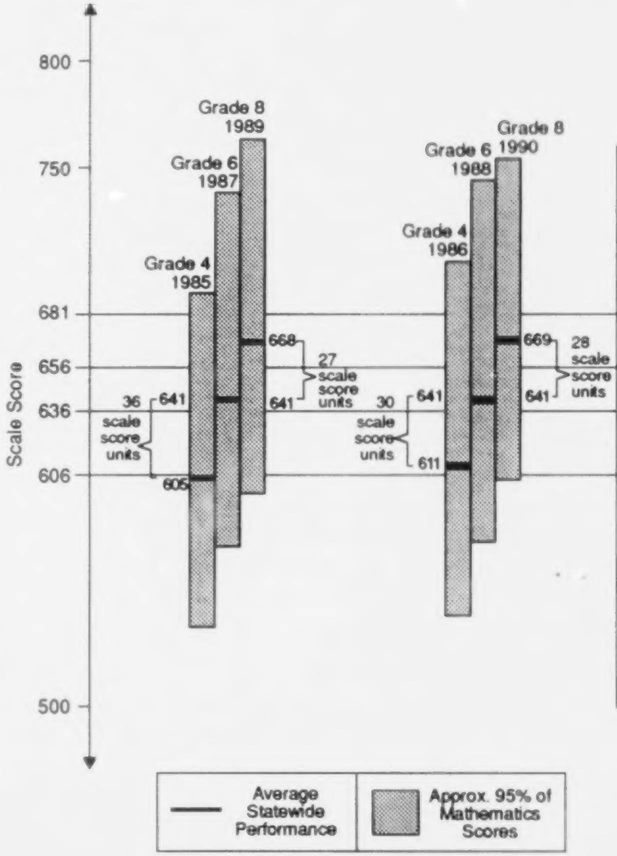
In order to interpret student performance across grade levels, vertical scales were developed in the areas of mathematics and reading comprehension. Scaled scores can be used to measure growth over time because CMT scores from all three grade levels have been placed on a common scale. These scales provide a means of monitoring students' academic progress from grade to grade. Before the scales were developed, it was difficult to assess the performance of groups of test takers as they moved from grade to grade because of differences in test length, curriculum content covered and levels of difficulty on the fourth-, sixth- and eighth-grade tests.

Since students who took the fourth-grade test in 1985 subsequently took the sixth-grade test in 1987 and the eighth-grade test in 1989, change in performance on the test can be assessed across four years' time for the group. Similarly, change in performance can be assessed for 1990 eighth graders who took the grade four test in 1986 and the grade six test in 1988. Chart 13 (p.30) and Chart 14 (p.31) present overall growth in performance for these students in the content areas of mathematics and reading comprehension, respectively. These results show meaningful growth in both mathematics and reading comprehension for the groups of students from grade four to grade six and from grade six to grade eight. Chart 13, for example, shows that the average statewide performance in mathematics, for the group of students who took the fourth-grade test in 1985, the sixth-grade test in 1987 and the eighth-grade test in 1989, has moved in a positive direction. While initial results are encouraging, it is premature to draw definitive conclusions about how much growth to expect as students progress from grade to grade. Such conclusions are possible only after the program has been in effect for several years. It should be noted that each eighth-grade group differs, to some extent, from its respective sixth-grade group and that each sixth-grade group differs from its respective fourth-grade group because some students entered, while other students exited the Connecticut public school system over the years.

CHART 13
MATHEMATICS (GRADE 4 TO GRADE 6 TO GRADE 8)

Comparison of Average Statewide Mathematics Performance Grade 4 (1985 Administration) to Grade 6 (1987 Administration) to Grade 8 (1989 Administration) and Grade 4 (1986 Administration) to Grade 6 (1988 Administration) to Grade 8 (1990 Administration) Using Scale Scores

Results for 1985 Grade 4 Cohort (Class of 1994) and
1986 Grade 4 Cohort (Class of 1995)

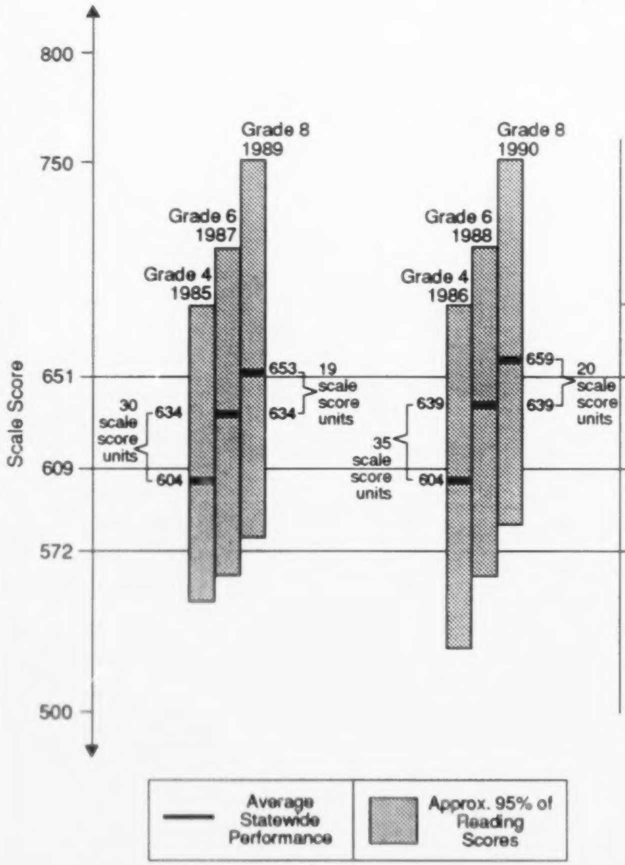


Level of Understanding	Description
Level V 681+	Strong conceptual understanding, computational ability and problem solving ability.
Level IV 656-680	Broad conceptual understanding except ordering fractions and decimals; strong computational skills except fractions; strong problem solving ability except in area of measurement.
Level III 636-655	Mastery of place value, whole numbers and decimal skills and concepts. Estimation and 1- and 2-step problem solving developing. Limited skills and understandings of fractions, percents, equivalents and measurement.
Level II 606-635	Mastery of whole number skills and place value, tables and graphs and simple 1-step word problems. Limited conceptual understanding or ability with measurement or geometry.
Level I Less than 606	Ability to handle the simplest of computational exercises and problems. Weak conceptual understanding and limited measurement skills.

CHART 14
READING COMPREHENSION (GRADE 4 TO GRADE 6 TO GRADE 8)

Comparison of Average Statewide Reading Performance
Grade 4 (1985 Administration) to Grade 6 (1987 Administration) to Grade 8 (1989 Administration) and
Grade 4 (1986 Administration) to Grade 6 (1988 Administration) to Grade 8 (1990 Administration)
Using Scale Scores

Results for 1985 Grade 4 Cohort (Class of 1994) and
1986 Grade 4 Cohort (Class of 1995)



Level of Understanding	Description
Level IV 652+	Strong ability to make inferences and predictions about ideas, purposes and patterns. Strong ability to judge the authenticity, reliability and validity of written material.
Level III 610-651	Mostly able to comprehend the literal meanings of ideas. Developing capacity to infer meanings and make critical judgments about ideas, purposes and patterns.
Level II 572-609	Some ability to select details and understand the literal meanings of ideas which are clearly stated. Very limited ability to make critical judgments about statements or make inferences about implied ideas, patterns and purposes.
Level I Less than 572	Unable to translate or understand the literal meanings of ideas which are clearly stated within a passage.

Participation Rate Results

Appendix M (p. 109) presents the number of eighth-grade students in each district and the percents of students who participated in the grade eight mastery testing during the fall 1990 statewide administration. Appendix M also shows the percent of students exempted from CMT testing. The alphabetical listing of districts provides the following information for each district:

Column 1	The name of the district
Column 2	The total eighth-grade population at the start of mastery testing
Column 3	The number of students eligible for testing
Column 4	The percent of total population exempted from testing
Columns 5-8	The percent of eligible students tested in each content area

The results in Appendix M illustrate that participation rates by school district on the eighth-grade CMT were quite high, with only a few exceptions. However, the high percentage of students exempted from the CMT, statewide, combined with the large variation in exemption rates among districts, has raised concerns about the fair application of exemption procedures and its impact on students. The Department is currently examining the impact of the exclusion provisions on the CMT programs for Special Education and bilingual students. It is anticipated that the results from these analyses will be available in the spring of 1991.

APPENDIX A

Test Construction

Test Construction

The development of the eighth-grade criterion-referenced mastery test required the formation of seven statewide advisory committees. These included the Mathematics and Language Arts Advisory Committees, the Psychometrics Advisory Committee, the Bias Advisory Committee, the Mastery Test Implementation Advisory Committee and two standard-setting committees, one for mathematics and one for language arts. These committees were comprised of representatives from throughout the state. Members were selected for their area of expertise. Approximately 150 Connecticut educators participated on the mastery test committees which met over 80 times during the first 18 months of test development. (See Acknowledgements, p. v and p. 48.)

Beginning in the spring of 1985, content committees in both language arts and mathematics participated in each stage of the test development process, including assisting the State Department of Education in the selection of The Psychological Corporation as its test contractor. First, the content committees reviewed the curriculum materials prevalent throughout the state and the scope of the national tests in use in Connecticut at the respective grade levels. Additional resources included the Connecticut curriculum guides in mathematics and language arts, developed in 1981, as well as the results of recent Connecticut Assessment of Educational Progress (CAEP) assessments in mathematics and language arts. Next, the committees identified sets of preliminary mathematics and language arts objectives which reflected existing curriculum materials and the goals of the mastery testing program. The content committees defined an objective as an operationalized learning outcome that was fairly narrow and clearly defined.

Four criteria were used in identifying the appropriate learning outcomes or test objectives and in selecting specific test items to be included on the Grade 8 Connecticut Mastery Test (CMT). To have been considered for use, test objectives and items must have been:

(1) significant and important;
(2) developmentally appropriate;
(3) reasonable for most students to achieve; and
(4) generally representative of what is taught in Connecticut schools.

Once the objectives were identified, item specifications and/or sample items were written. Item specifications are written descriptions of the types and forms of test items that assess an objective. They also prescribe the types of answer choices that can be used with each item.

After the test specifications were written and agreed upon, the test contractor wrote items and response choices for each of the objectives. The items were then reviewed by the content committees. Items which met the criteria of the test specifications and received the approval of the content committees were considered for the pilot test. Before testing, the Bias Advisory Committee reviewed each item for potential discrimination related to gender, race, or ethnicity in the language or format of the question or response choices. Page v lists the original members of the Bias Advisory Committee although some membership changes have occurred since piloting. After their review was completed, the pilot test forms were constructed. Over 1,600 customized Connecticut items were included in the October 1985 grade eight pilot test in language arts and mathematics.

The Psychometrics Advisory Committee provided advice concerning other aspects of the pilot test including the sampling design, statistical bias analysis, the design of item specifications and pilot test administration procedures. The recommendations proposed by the Psychometrics Advisory Committee were reviewed and endorsed by the Mastery Test Implementation Advisory Committee.

Pilot Tests

After the items had been reviewed, twelve test forms (six in mathematics, and six in language arts) were piloted for the grade eight test. The purpose of several pilot test forms was to ensure that enough test items were included to construct three comparable test forms from the pilot test results.

Over 8,000 grade eight students participated in the October 1985 pilot test. In January 1986, the pilot test results were made available to Connecticut State Department of Education (CSDE) staff. The process of selecting items to construct three comparable test forms began by the Bias Advisory Committee examining the pilot test statistics of each item for potential bias. As a result, some items were eliminated from the item pool. From the remaining items, test forms were constructed to be equivalent in content and difficulty at both the objective and total test levels.

Once the items were sorted on this basis, the test contractor prepared three complete forms of the mathematics test and two complete forms of the language arts test. These forms were approved by the content committees. Each form was created to be equal in difficulty and test length. A third language arts test was constructed after a few additional items were piloted as part of a later test administration. The psychometric procedures used to construct these test forms focus primarily on the use of the one-parameter item response model.

Survey

In October 1985, a survey of preliminary grade eight mastery test objectives was sent to over 4,000 Connecticut educators. The purpose of the survey was to determine (1) the importance of the proposed mathematics and reading/language arts objectives, and (2) whether the objectives were taught prior to the beginning of grade eight. Approximately a 45% response rate was achieved which included approximately one-third of the respondents representing urban school districts. Thirty-six out of the original thirty-seven mathematics objectives were judged to be important learning skills.

APPENDIX B

Grade Eight Mathematics Objectives

Grade Eight Mathematics Objectives

The 36 objectives of the eighth-grade mathematics test are listed below. There are four test items for each objective. The number of items in each domain is indicated in the parentheses.

CONCEPTUAL UNDERSTANDINGS (44)

1. Order fractions
2. Order decimals
3. Round whole numbers
4. Round decimals to the nearest whole number, tenth and hundredth
5. Multiply and divide whole numbers and decimals by 10, 100 and 1,000
6. Identify fractions, decimals and percents from pictorial representations
7. Convert fractions to decimals and vice versa
8. Convert fractions and decimals to percents and vice versa
9. Identify points on number lines, scales and grids
10. Identify ratios and fractional parts from given data
11. Identify an appropriate procedure for making estimates with decimals and fractions

COMPUTATIONAL SKILLS (40)

12. Add and subtract whole numbers less than 10,000
13. Multiply and divide 2- and 3-digit whole numbers by 1- and 2-digit numbers
14. Add and subtract decimals (to hundredths) in horizontal form
15. Identify the correct placement of the decimal point in multiplication and division of decimals
16. Add and subtract fractions and mixed numbers
17. Multiply fractions and mixed numbers
18. Determine the percent of a number
19. Estimate sums and differences of whole numbers and decimals including making change
20. Estimate products and quotients of whole numbers and decimals
21. Estimate fractional parts and percents of whole numbers and money amounts

PROBLEM SOLVING/APPLICATIONS (with calculators available) (40)

22. Compute sums, differences, products and quotients using a calculator
23. Interpret graphs, tables and charts
24. Solve 1- and 2-step problems involving whole numbers and decimals, including averaging
25. Solve 1- and 2-step problems involving fractions
26. Solve problems involving measurement
27. Solve problems involving elementary probability
28. Estimate a reasonable answer to a given problem
29. Solve problems with extraneous information
30. Identify needed information in problem situations
31. Solve process problems involving the organization of data

MEASUREMENT/GEOMETRY (20)

32. Identify figures using geometric terms
33. Measure and determine perimeters and areas
34. Estimate lengths, areas, volumes and angle measures
35. Select appropriate metric or customary units and measures
36. Make measurement conversions within systems

Performance on all 36 math objectives is reported at the student, classroom, school, district and state levels.

APPENDIX C

Grade Eight Language Arts Objectives

Grade Eight Language Arts Objectives

There are eleven language arts objectives and two holistic measures, one for reading and one for writing, within the eighth-grade language arts test. The number of items for each content area or objective is indicated in the parentheses.

WRITING MECHANICS (39)

1. Capitalization and Punctuation (12)
2. Spelling (8)
3. Agreement (15)
4. Tone (4)

STUDY SKILLS (16)

5. Locating Information (12)
6. Note-taking and Outlining (4)

LISTENING COMPREHENSION (20)

7. Literal (4)
8. Inferential and Evaluative (16)

READING COMPREHENSION (36)

9. Literal (8)
10. Inferential (14)
11. Evaluative (14)

DEGREES OF READING POWER (77)

WRITING SAMPLE (1)

Holistic scoring is provided for all students. Analytic scoring is provided for students who score at or below the remedial standard of 4 (on a scale of 2-8).

Performance on all eleven Language Arts objectives, the Degrees of Reading Power and the Writing Sample is reported at the student, classroom, school, district and state levels.

APPENDIX D

Remedial (Grant) Standard-Setting Process

and

Standard-Setting Committees

Remedial (Grant) Standard-Setting Process

Background

There are several acceptable strategies for setting standards on criterion-referenced tests. Each of the proposed methods has one or more unique characteristics. One common element to the various methods is that they all offer to the individuals who are setting the standards some process which reduces the arbitrariness of the resulting standard. Different methods accomplish this in different ways. All methods systematize the standard-setting process so that the result accurately reflects the collective informed judgment of those setting the standard.

Types of Standard-Setting Methods

Standard-setting methods can generally be categorized into three types: test question review, individual performance review and group performance review. Test question review methods specify a procedure for standard setters to examine each test question and make a judgment about that question. For example, standard setters might be asked to rate the difficulty or the importance of each question. These judgments are then combined mathematically to produce a standard. Individual performance review methods also require standard setters to make judgments, but the judgments are made on the basis of examining data that indicate how well individual students perform on test items. These data may be based on actual pilot test results or projected results using mathematical theories. In this method, additional student information, such as grades, may also be used to inform the standard setters. Group performance review methods provide for judgments to be made based on the performance of a reference group of students. That is, standard setters review the group performance and make a determination where the standard should be set based on the group results.

Selection of a Standard-Setting Method

Several factors affect the choice of a particular standard-setting method. The type of test is one consideration. For example, some methods are only appropriate for multiple-choice questions or for single correct answer questions while other methods are more flexible. For example, time constraints are a consideration if student performance data are necessary. In this case, a pilot test must be conducted and the test results must be analyzed prior to setting the standards. Another consideration is the relative importance of the decisions that will be made on the basis of the standard. For example, a classroom test affecting only a few students would not require as stringent a procedure as would a statewide test determining whether a student is allowed to graduate from high school. Other relevant factors include the number of test items, permanence of the standard, purpose of the test and the extent of available financial and other resources to support the standard-setting process.

On February 4, 1985, the Mastery Test Psychometrics Committee met to consider the issue of standard-setting procedures and voted unanimously to approve the following proposal.

A PROPOSAL FOR SETTING THE REMEDIAL STANDARDS ON THE CONNECTICUT MASTERY TESTS

1. Two standard-setting committees will be created: one for mathematics and one for reading and writing.

2. This description of a minimally proficient student will be given to each of the committees:

> Imagine a student who is just proficient enough in reading, writing and mathematics to successfully participate in his/her regular eighth-grade coursework.

3.a. In mathematics, an adaptation of the Angoff procedure will be used. The committee will be provided with each item appearing on one form of the mathematics test. The committee will be given the following directions:

> Consider a group of 100 of these students who are just proficient enough to be successful in regular eighth-grade coursework. How many of them would be expected to correctly answer each of the questions?

The committee will rate each item. The committee will then be given the opportunity to discuss their rating of each item. Sample pilot data will be presented. Committee members will be given the opportunity to adjust their item ratings. The item ratings will then be averaged in accordance with the Angoff procedure in order to produce a recommended test standard.

b. In reading, the committee will review and discuss each passage of the Degrees of Reading Power (DRP) test. Student performance data will be presented. The committee will consider the reading difficulty that should be expected of a student at the grade level being tested. The committee members will identify the passage that has the appropriate level of reading difficulty consistent with the above description of a minimally proficient student.

c. In writing, the committee will read four sample essays. These essays will have been prescored holistically (on a scale from 2 to 8) in order to rank the quality of the essays. Committee members will classify essays into one of three categories: 1) definitely NOT proficient, 2) borderline and 3) definitely proficient. These classifications will be discussed in light of the holistic scores. The committee will then classify approximately twenty-five additional essays. The essay ratings will be discussed in the same manner as the original four essays. When all essays have been discussed, the essays which fell in the borderline category will be focused upon to determine the standard. The committee will determine where, among the borderline essays, the standard should be established.

4. The standards recommended in step 3 will be presented to the Mastery Test Implementation Advisory Committee for discussion and action.

Connecticut's Strategy

Several steps were employed to create an acceptable and valid test standard for Connecticut tests. Initially, a separate standard-setting committee was convened for each test on which standards were to be set. Individuals were chosen to serve as members on the committee on the basis of their familiarity with the area being assessed and the nature of the examinees. One source of such members was the test content committees related to the project. For example, members of the Mathematics Advisory Committee were represented on the committee setting standards for the mathematics mastery test.

The actual procedures used to set standards were an adaptation of a method proposed by William Angoff (1970). This test question review method required members of a standard-setting committee to estimate the probability that a question would be correctly answered by examinees who possess no more than the minimally acceptable knowledge or skill in the areas being assessed. Standard setters then reviewed pilot test data for sample items as further evidence of the appropriateness of the judgments being made. The original probability estimates assigned to each test question were reviewed and adjustments made by the standard setters. The final individual item probabilities were summed to yield a suggested test standard for each member of the committee. The suggested standards were averaged across members of the committee to produce the recommended test standard.

The recommended test standard was presented to the Mastery Test Implementation Advisory Committee and the State Board of Education.

In mid-March, Mathematics and Language Arts Standard-Setting Committees met to set the remedial standards for the Grade 8 Mastery Test. The following information summarized the results of the standard-setting activities conducted by CSDE staff:

I. Mathematics (144-item test)

Using the procedures previously outlined, the standard setters rated each item and considered the pilot data. Committee members discussed items and were given the opportunity to adjust their initial ratings. The final ratings were averaged to produce a remedial standard. It was recommended that a raw score of 79 be the remedial mathematics standard. Below is a summary of the ratings.

Procedure	# Judges	Range %	Mean % Correct	Raw Score
Angoff	20	25.7-67.7	54	78

II. Reading (Degrees of Reading Power, 77-item test)

Standard setters used two procedures to establish a remedial reading standard. First, they examined the passages in the Degrees of Reading Power (DRP) test, asking themselves which passage is too difficult for the student who is just proficient enough to successfully participate in eighth-grade coursework. Discussion occurred throughout this selection process.

Second, they examined textbooks which are typically used in grades seven and eight and selected those textbooks which a minimally proficient student would not be expected to read in order to successfully participate in eighth-grade coursework. Discussion occurred throughout this selection process.

The average readability values of the selected passages and textbooks and the pilot test data were then revealed to the standard setters. The standard setters discussed the readability values and the pilot test data and recommended the DRP unit score of 55 as the remedial standard. The standard was accepted by the State Board of Education at the 80% comprehension level. Below is a summary of the ratings.

Procedure	# Judges	Readability Range	Recommended Remedial Standard
A. Test Passage Review	26	53-62 DRP Units	55 DRP Units
B. Textbook Review	26	48-60 DRP Units	

III. Writing (45-minute writing sample)

Using the procedure previously outlined, standard setters read and rated 21 essays written to a persuasive prompt and 21 essays written to an expository prompt. After discussions and final ratings, the holistic scores for the papers were revealed to the group. The committee then discussed the appropriate remedial writing standard in light of the degree to which their ratings matched the holistic scores. It was the recommendation of the committee that a holistic writing score of 4 be used as the remedial writing standard. Below is a summary of the ratings.

PERSUASIVE PROMPT

Rating After Discussion

Holistic Score	Definitely NOT Proficient	Borderline	Definitely Proficient
2	100%	0%	0%
3	69%	0%	31%
4	27%	1%	72%
5	0%	0%	100%
6	6%	0%	94%
7	1%	0%	99%
8	0%	0%	100%

EXPOSITORY PROMPT

Rating After Discussion

Holistic Score	Definitely NOT Proficient	Borderline	Definitely Proficient
2	100%	0%	0%
3	99%	0%	1%
4	17%	1%	82%
5	22%	0%	78%
6	0%	0%	100%
7	0%	0%	100%
8	0%	0%	100%

Standard-Setting Committees

LANGUAGE ARTS STANDARD-SETTING COMMITTEE

Dell Britt, Newtown Public Schools
Fred Brucoli, New London Public Schools
Patricia Dobson, Stafford Public Schools
Donald Falcetti, Litchfield Public Schools
Bill Farr, Bolton Public Schools
James Foley, Waterbury Public Schools
Dorothy French, Litchfield Public Schools
Marguerite Fuller, Bridgeport Public Schools
Sara Godek, Stafford Public Schools
Nina Grecenko, Newtown Public Schools
Mary Haylon, Hartford Public Schools
Karen Karcheski, Danbury Public Schools
Robert Kinder, CT State Department of Education
Jean Klein, Newtown Public Schools
Mark Kristoff, New London Public Schools
Thomas Lane, Old Saybrook Public Schools
Lucretia Leeves, Hartford Public Schools
Edward Moore, Danbury Public Schools
Mary Murray, Putnam Public Schools
Dick Nelson, Old Saybrook Public Schools
Olive S. Niles, East Hartford Public Schools
Anne L. Rash, Bolton Public Schools
Bernice Wagge, Waterbury Public Schools
Mary Weinland, CT State Department of Education
Mary Wilson, Hartford Public Schools
Barbara Zamagni, Putnam Public Schools

MATHEMATICS STANDARD-SETTING COMMITTEE

Barbara Bailey, New Haven Public Schools
Pat Banning, Windham Public Schools
George Caouette, Manchester Public Schools
Pearl Caouette, Manchester Public Schools
Betsy Carter, CT State Department of Education
Tony Ditrio, Norwalk Public Schools
Don Flis, West Hartford Public Schools
Marian Frascino, Norwalk Public Schools
Charles Framularo, Bridgeport Public Schools
Sheryl Hershonick, New Haven Public Schools
Steve Leinwand, CT State Department of Education
Mable McCarthy, Middletown Public Schools
Michele Nahas, Windham Public Schools
Judy Narveson, Farmington Public Schools
Mary Ann Papa, West Hartford Public Schools
Jim Pinto, Bloomfield Public Schools
Helen Prescott, Ashford Public Schools
Dolores Vecchiarelli, Westport Public Schools
Sylvia Webb, Middletown Public Schools
Frank Whittaker, Bridgeport Public Schools

APPENDIX E

Grade Eight Overview of Holistic Scoring

and

Marker Papers for Holistic Scoring

An Overview of Holistic Scoring

Description of the Method

Holistic scoring involves judging a writing sample for its total effect. The scorer makes an overall evaluation taking into account all characteristics which distinguish good writing. No one feature (such as spelling, rhetoric, or organization) should be weighted to the exclusion of all other features. Contributing to the rationale underlying holistic scoring is evidence that:

- no aspect of writing can be judged independently and result in an overall score of quality;
- teachers can recognize and concur upon good writing samples; and
- teachers tend to rank entire pieces of writing in the same way, regardless of the importance they might attach to the particular components of writing.

The scoring scale for holistic scoring is determined by the quality of the specific samples being evaluated. That is, the success of a particular response is determined in relationship to the range of ability reflected in the set of writing samples being assessed.

Preparation for Scoring

Prior to the training/scoring sessions, a committee consisting of Connecticut State Department of Education (CSDE) consultants, representatives of the Language Arts Advisory Committee and other language arts specialists from throughout the state, two chief readers and a project director from Measurement Inc. of Durham, North Carolina, and a reading specialist from The Psychological Corporation met and read a substantial number of essays drawn from the total pool of essays to be scored. Approximately 60 essays were selected to serve as "range-finders" or "marker papers" representing the range of achievement demonstrated in the total set of papers. Copies of those range-finders served as training papers during the scoring workshops which followed. Each range-finder paper was assigned a score according to a four-point scale, where 1 represented a poor paper and 4 represented a superior paper.

Scoring Workshops

During the month of November, several holistic scoring workshops were held in various locations throughout the state. Attendance at the grade eight scoring workshops totaled 275 teachers. A chief reader and two assistants were present at every workshop in addition to representatives of the CSDE. Each workshop consisted of a training session and a scoring session.

Training and Qualifying

- All teachers were shown approximately fourteen range-finder papers. The chief reader discussed each paper and explained the reason why each received its score.

- All teachers were given a six-paper practice set. They scored the papers independently and recorded the scores on their papers. When all teachers were finished, the chief reader discussed each paper and explained why each received its score.
- All teachers were given a nine-paper training set. They scored the papers independently, based on an overall impression, and recorded their scores on a monitor sheet as well as on their papers. As they finished reading and scoring, they brought the monitor sheet to the team leader who checked the scores. When all teachers were finished and all monitor sheets were checked, the chief reader discussed the nine-paper set.
- Regardless of whether or not they qualified on the first training set, all teachers were then given another nine-paper training set. They scored the papers and had the monitor sheets checked. Set Two was not discussed, except with non-qualifiers.
- Teachers were considered qualified if they scored six or more papers correctly on either set. Teachers who met the standard began scoring live papers after Set Two.
- If any teacher did not qualify, they received additional training by one of the team leaders or by the chief reader away from the scoring room. They had two more opportunities to qualify. Any teacher who failed to qualify would have been excused from the project and paid for one day.

The Scoring Session

Once scorers qualified, actual scoring of the writing exercises began according to the steps outlined below:

- Scorers read each paper once carefully but quickly and designated a score. Again, the score reflected the scorer's overall impression of the response as it corresponded with the features of written composition which were internalized during the training process.
- Each paper was read and scored by a second scorer independently of the first, that is, without seeing the score assigned by the first reader. The chief reader had the responsibility of adjudicating any disagreement of more than one point between the judgments of the first two scorers. In other words, adjacent scores (i.e., awarded scores of 4 and 3, 1 and 2, 2 and 3) were acceptable, but larger discrepancies (i.e., scores of 2 and 4, 3 and 1, 1 and 4) were resolved by the chief reader. In general, with successful training, the occurrence of large score discrepancies is rare.
- The two scores for each paper were added to produce the final score for each student, resulting in scores between 2 and 8.

Understanding the Holistic Scores

Examples of actual student papers which are representative of the scoring range will assist the reader in understanding the statewide standard set for writing and interpreting the test results. Sample papers representing four different holistic scores are presented on the following pages. Note that the process of summing the scores assigned by the two readers expands the scoring scale to account for "borderline" papers. A paper which receives a 4 from both scorers (for a total score of 8) is likely to be better than a paper to which one reader assigns a 4 and another reader assigns a 3 (for a total score of 7). In addition, it should be emphasized that each of the score points represents a range of student papers--some 4 papers are better than others.

A score of Not Scorable (NS) was assigned to student papers in certain cases. A score of NS indicates that the student's writing skills remain to be assessed. The cases in which a score of NS was assigned were as follows:

- responses merely repeated the assignment;
- illegible responses;
- responses in languages other than English;
- responses that failed to address the assigned topic in any way; and
- responses that were too brief to score accurately, but which demonstrated no signs of serious writing problems (for example, a response by a student who wrote the essay first on scratch paper and who failed to get very much of it copied).

Both readers had to agree that a paper deserved a NS before this score was assigned. If the two readers disagreed, the Chief Reader arbitrated the discrepancy. Papers which were assigned a score of NS were not included in summary reports of test results.

Summary Comments

The fact that standards must be maintained and reinforced throughout a scoring session cannot be overemphasized. Holistic scoring depends for its usefulness on consistency of scoring among all scorers throughout the sessions.

WRITING ASSIGNMENT
Grade Eight
Form D

Suppose you had the choice of whether you lived in the city or in the country. Your parents or guardians want to move, and they want you to help them to decide to what kind of place your family will move. Where would you rather live, in the city or in the country? What are the advantages of living there? What are the disadvantages?

- Decide whether you would rather live in the city or in the country.
- Think of reasons to convince your parents or guardians that your choice is better.
- Write an essay to persuade your parents or guardians to move there.

One day I over herd my mom and dad talking about liveing in the county. I didn't like the county because I didn't like animal and things like hay and more things. I was so in love with the city I didn't what to go so me and my parents came up with an idea. The idea to try the county and see how it was like for a mouth and a mouth later I fell in love with the county. So we stayed in the county. So we stayed in the county and one more thing before I end this story I learn to like animal.

Score Point: 1

This response provides evidence that the writer saw the prompt and attempted to respond to it (I fell in love with the country). Although the response discusses a plan about deciding where the family will live, the writer gives minimal information about the advantages or disadvantages of living in the city or country (I didn't like animals and things like hay).

---

well I'll convince them to live in the city because all my friends are the. And I'll convince the to live in the country cause there aren't any drugs or guns or anything bad.

Score Point: 1

This response has only two bare reasons (all my friends are there and there aren't any drugs or guns). A lengthier list of bare reasons or some extended reasons would be necessary for a higher score.

Dear Mom + Dad,

I would like to move to the country because it peaceful, and thare is more space. A disadvantage is that the stores are far away.

I think it is peaceful because thare is no loud noise's. You don't have nighbers bothering you.

Thare is far more space in the country then in the city. You have room for ball-games like races, and pools.

A disadvantage to living in the country is that the stores are far away. You could have a farm and grow crops.

I would rather live in the country then the city because it is quiter.

Score Point: 2

This response is organized according to the prompt, presenting the advantages and disadvantages in the opening paragraph and then devoting a paragraph to each. Although the writer begins to elaborate the ideas (it is peaceful because there are no loud noises), the response remains sparse. More elaboration is needed for a higher score.

I prefer a city

I prefer to move to New York city. Because my family and I could get the good view of the Statue of Liberty. Go to dances in Roseland. Get tickets to see Singers perform for you. Go See the animals in the Bronx's zoo. Get tickets to see Baseball games' in the Shea Stadium or in the Yankees Stadium. Go to museums' and get the good view that you missed before. Even go to coliseum to see your favorite Sports, such as: Football, basketball, wrestling, boxing, hockey, and plenty of more. Also you could get a good view at the Empire State Building. Also visit the Studios that the opera characters make their Soap Opera. And to see how all the buildings look like at the night.

Score Point: 2

This writer presents only the advantages of living in New York City, an acceptable approach. Although numerous reasons are given, the ideas are presented at random with little elaboration. More elaboration and more control of the progression of ideas are needed for a higher score.

I Want to Move to The Country

I think moving to the country would be the best thing for us because we lived in the city all our lives. I think it would be fun to move to the country because of all the things to do like for instant we could go fishing, hunting, or hiking. Also it is much quieter in the country and not so much problems on the streets

If we moved to the country I don't think we could get bord, their is always something to do. We all like togo camping, well theirs plenty of woods to go camping in. Also dad and I can go fishing more often instead of just on the weekends. Thier also is a lot of hunting to do in the country. We can also go on more picnics and also more hikes in the woods. Another thing is I would have more space to ride my dirtbike and also I could make my own trails.

But their are some things that make me not want to leave, like I will miss all my friends. Also I will miss going to the mall and the movies. Another thing I will miss is my family, but I still think the best thing to do is move to the country besides I will make new freinds their.

Score Point: 3

This low "3" response is tightly controlled with an elaborated reason on all the things to do in the country. In addition, the final paragraph presents some rebuttal to the disadvantages.

My Dession

I am going to try to convence my mom to let me live in the city. I have three reasons I want to live in the city. One is because more people to talk to, I will have all my friends to play with in the city, I want to stay in the city because I like allot of noise and it is to quiet in the country.

I want to stay in the city because of more people what I mean by that is when we go outside we will have people to talk to that we know insteed of going to the country and not knowing anyone and being lonly.

My second reason I want to stay in the city is because all my friends live in the city like an exemple my best friend she lives in a city and if we moved to the country I wouldnt beable to see her and I would have to meet a new best friend.

My last reason I want to stay in the city is because It wont be

as quiet as it would in a country If I went to the country it would be to quiet and I like allot of noise. That is why I want to live in the city.

Now I have explained my reasons I want to live in the city I just hope you understand so I can stay in the city with all my friends and make allot of noise.

Score Point: 3

This response is well organized with sufficient elaboration to achieve a score of "3." The writer presents three reasons in the introduction (more people to talk to, all my friends to play with, I like a lot of noise) and devotes a paragraph to each reason. The discussion of quiet in the fourth paragraph is weak, however, and more development is needed for a higher score.

I rather live in the city. The city is the best for me and my family. The city is exciting, but my parents don't know. if we should move to the country or stay in the city. I say the city because it is my home and I love it. The city is better because you can see interesting things in the city like buildings, large stores, fine restaurants and good looking girls. You don't have that in the country. In the city you also have what you need like grocery stores, your car, your belongings, your friends, and your family. I say we should live in the city because most of our family lives their like my uncles, aunts, nephews, cousins, grandfather, and grandmother. We should also live in the city because it is easier to get around. It is easier because you have either your own transportation or another kind of transportation. It is also easier because you know lots of people and know where to go or where the things you need or want are. So I say that the city is better because it is an exciting place for me and my family to live in. It is the best Mom, Dad.

You like it too Mom, Dad because you don't have as much work as in the country.

We shouldn't live in the country because it is too quiet and boring. It is boring because you don't have anything to do their. We should also not live there because it is too hot there. It is too hot because the sun shines on you and makes you feel like you had a bad sun burn. We shouldn't live there because there is lots of work to be done there like the dishes, cleaning the house, cutting the lawn, and sometimes if you live in a farm even farm work. You also have to walk forever to get to places like a market, gasoline station, or a friends house because the cars there hardly work at all. We shouldn't live there Mom, Dad because people live faraway from each other that you don't even make friends with anyone at all. Mom, Dad there is also one other reason we shouldn't live there. There is no telephone out there at all and without a telephone we can't keep in touch with friends or family in the city. So I beg you think it over. Once you say we stay in the city you'll love me for convincing you that the city is the best. It is our home and we all love it.

Score Point: 4

This response is organized and controlled. The writer gives numerous advantages of living in the city and disadvantages of living in the country, with at least some elaboration on each reason. In addition, the writer exhibits an effective persuasive tone (so I beg you to think it over...the city is the best. It is our home and we all love it.).

Country-living is a fine alternative to city life. I think we should move to a rural area for many good reasons.

The open, fresh country air is very relaxing. There is no pollution and no smog in the country areas. The sun shines down and gentle breezes blow. If we moved to a large city, there wouldn't be any trees either, and we would all miss the comforting shade of a giant oak.

Houses and farmhouses in the country are quaint and available at reasonable prices. Apartments in the city are very high priced, small, and scarce.

In the quiet countryside there is no hustle and bustle of city life. The birds chirp and the people are not always rushing around. On weekends, people settle down and enjoy the day.

Also, people in the less populated country are friendly and courteous. They offer a kind hello if passing by. And there is a lot more sharing and helping out there.

It would also be fairly easy [illegible] to commute to a city area if a job opportunity arises. There are also many decent jobs in rural areas, including self-employment.

Just think about it, no crowded, narrow streets, violent crimes, and small, crowded apartments to come home to at night. Only stretching, rolling land and a fire in the fireplace.

All this contributes to a very stress-free way to live. You can forget about most of your worries and keep the door unlocked at night.

There are many things to do for enjoyment in the country areas. We would be able to keep animals and care for them. We could also plant a huge garden, which I would help out in. For recreation, there are lakes and streams to go swimming, wading, or fishing in. We could even plant a field of corn in the summertime.

Starting out in the country is alot of fun. We'd meet our neighbors, maybe they'd help us unpack, then stir up some ice tea and sit out for awhile. The next day I'd start school in a most likely small schoolhouse and make friends from around the area. There wouldn't be any problems such as drugs or vandalizem in the country school like there would be in an inner-city school.

In the winter time we can go sleighing or bobsleding because there is plenty of wide open space. This is something you can't do in a city, unless you want to be hit by a car. Horse back riding is also something new to try in the scenic country.

I think that I've summed up just about every reason why moving to the country is an excellent choice. [redacted] I hope you consider my ideas and reasons

Score Point: 4

Excellent word choice and good connections between reasons make this "4" response outstanding. The writer's use of vignettes to illustrate the major points is particularly effective.

APPENDIX F

Grade Eight Analytic Rating Guide

and

Marker Papers for Analytic Scoring

Grade Eight Analytic Rating Guide

FOCUS: How effectively does the writer unify the paper by a dominant topic?

1 = switches and/or drifts frequently from the dominant topic

2 = switches and/or drifts somewhat from the dominant topic

3 = stays on topic throughout the response

ORGANIZATION: Is there a plan that clearly governs the sequence from the beginning to the end of the response, and is the plan effectively signaled?

1 = no discernible plan

2 = inferable plan and/or discernible sequence; some signals may be present

3 = controlled, logical sequence with a clear plan

SUPPORT/ELABORATION: To what extent is the narrative developed by details that describe and explain the narrative elements (character, action and setting)?

1 = vague or sketchy details that add little to the clarity of the response or specific details but too few to be called list-like

2 = details that are clear and specific but are list-like, or uneven, or not developed

3 = somewhat developed details that enhance the clarity of the response

CONVENTIONS: To what extent does the student use the conventions of standard written English (e.g., sentence formation, spelling, usage, capitalization, punctuation)?

1 = many errors

2 = some errors

3 = few errors

The Contry:

I want to live in the country because i love the animal. The animals are lovely. Some of them like to play around Some times i go around the park with the animals to have some fun. In the Saturday's i go with my mother shopping. We go to the stores and look. at the beutiful things that they have in the stores. We look at the shoes, clothes, toy's, radio's ect. In the Sunday's my grand father and me to get the animals some food. And t- the Monday i go to school and have some fun there.

FOCUS = 1
ORGANIZATION = 2
SUPPORT/ELABORATION = 1
CONVENTIONS = 2

I would like to live in the city where all the cars are fresh. The nice beautiful city is better then the old green dull cantry. In the country I'd have to put up with cleaning horse "cecedoody"? In the city, we could have a funky fresh car like a Jetla, Alpha Rameao Spider, or a Ferrari; Testarossa G.T. We could meet people from different places. We could buy some crazy clothes for school. While in school, cut on people left and right. Have a V.C.R a T.V. and a microwave. Get some radical hair cuts and no more afro's. We could live in a mansion with all gold stairs and tables. It will be great!

FOCUS = 3
ORGANIZATION = 2
SUPPORT/ELABORATION = 2
CONVENTIONS = 3

Where I would like to live.

I would like to live in the city. The city is very fun. All my friends live out here. There are nice things to do in the city. I like the city better than the country.

The advantages of living in the city are good. I like to go to the parks and play sports. Almost my whole family lives in the city. We could have more fun in the city. I like to play my music loud. In the city is where I grew up. This is where I have all my fun.

The disadvantages of living in the city are bad. People get killed in out here on the street. They usually get shot, or stabbed. I always get jumped out here. One of these times I'm going to get killed. There are to many diseases out here too. People get killed by the drugs. They get diseases from the drugs that people use. People sometimes die from the diseases. If we move to the country I wouldn't be able to blast my music. I wouldn't see my family as much. I wouldn't be able to go to the mall. I would not be able to go to the park and play ball everyday. Over all I would like to stay in the city.

FOCUS = 3
ORGANIZATION = 3
SUPPORT/ELABORATION = 3
CONVENTIONS = 3

I what to live in the city because are home and are cars school bus store and thing like that are in the city and country there are street to ride skate Borad and Bike car and these is a lot of grass in the country side in the city You can fish in the ocean not in the country side you got to fish in like and ponds and in the country side there are one or two store not like the city there are 50 or 60 store and in the city there our pizze hut and thing like skate board rape and I could ride skate board Bike and I could go to School and the park and I could play BaseBall and footBall and in the country I can't Because me freinds or in the city and in the country there are horses and Pig corn and it is hard to get to school too and no t.V. in the country too So mom what Do You say to live in the city Yes or No

FOCUS = 3
ORGANIZATION = 2
SUPPORT/ELABORATION = 2
CONVENTIONS = 1

APPENDIX G

Sample Grade Eight Mastery Test Score Reports

- Class Diagnostic Report
  - Mathematics
- School by Class Report
  - Mathematics
- District by School Report
  - Mathematics
- Class Diagnostic Report
  - Language Arts
- School by Class Report
  - Language Arts
- District by School Report
  - Language Arts
- Parent/Student Diagnostic Report

THE PSYCHOLOGICAL CORPORATION

CONNECTICUT MASTERY TESTING PROGRAM

CLASS DIAGNOSTIC REPORT

MATHEMATICS PART 1 OF 2

PAGE 1

TEACHER: M D
GROUP CODE: 75821
SCHOOL: H
SCHOOL CODE:
DISTRICT: B DISTRICT
DISTRICT CODE:

TEST DATE: 10/90

NUMBER OF STUDENTS TESTED: 23

NUMBER OF STUDENTS NEEDING FURTHER DIAGNOSIS IN MATHEMATICS : 6

GRADE: 08 FORM: D

OBJECTIVES	MASTERY CRITERIA # OF ITEMS CORRECT	DWAYNE	YOLANDA	JENNIFE	DANIEL	CHINNIA	JASON	YESENIA	YOLANDA	SHARICE	ANTHONY	BARBARA	TANIKA	LISA	DAISY	MILFRED	SALINA	JASON	PEDRO	NUMBER/PERCENT OF STUDENTS MASTERING EACH OBJECTIVE CLASS #/%	SCHOOL #/%	DISTRICT #/%
CONCEPTUAL UNDERSTANDINGS																						
1. Order fractions	3 of 4	2	1	3	4	0	2	3	1	2	3	1	4	3	0	2	4	4	4	10/ 43	17/ 39	503/ 45
2. Order decimals	3 of 4	2	3	4	4	2	4	2	2	3	4	2	4	3	2	2	4	1	4	13/ 57	23/ 52	621/ 56
3. Round whole numbers	3 of 4	4	2	2	4	4	3	4	4	4	4	2	4	4	4	4	4	4	4	19/ 83	36/ 82	939/ 85
4. Round decimals to the nearest 1, .1, .01	3 of 4	4	1	2	4	1	3	3	3	4	4	2	4	3	3	3	4	3	4	16/ 70	24/ 55	659/ 59
5. Mult/div whole #'s/dec by 10, 100, 1000	3 of 4	4	3	3	4	3	2	3	2	3	3	1	4	0	2	3	4	0	4	16/ 70	28/ 64	657/ 59
6. Identify frac/dec/percents from pictures	3 of 4	0	1	3	2	3	1	3	3	2	4	2	3	3	1	2	3	3	4	12/ 52	21/ 48	436/ 39
7. Convert fractions--decimals	3 of 4	3	3	1	4	3	1	2	2	3	3	3	2	4	3	3	3	3	4	16/ 70	29/ 66	702/ 63
8. Convert fractions/decimals--percents	3 of 4	2	1	3	4	1	2	3	3	3	3	1	4	4	2	4	4	3	4	15/ 65	26/ 59	617/ 56
9. Identify points on # lines/scales/grids	3 of 4	2	2	3	4	2	4	4	3	3	4	2	4	3	2	4	4	4	4	18/ 78	36/ 82	962/ 87
10. Identify ratios and fractional parts	3 of 4	2	3	2	4	1	2	3	4	3	3	2	4	3	2	3	4	0	3	14/ 61	27/ 61	690/ 62
11. Identify procedure-frac/dec estimation	3 of 4	1	2	2	3	2	4	3	2	4	2	2	3	3	4	4	4	3	4	14/ 61	27/ 61	628/ 57
COMPUTATIONAL SKILLS																						
12. Add and subtract whole numbers	3 of 4	3	4	4	4	3	4	4	4	4	3	3	3	2	4	3	4	4	4	22/ 96	41/ 95	1048/ 94
13. Multiply and divide whole numbers	3 of 4	4	3	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	23/100	43/100	1034/ 93
14. Add and subtract decimals	3 of 4	4	4	3	4	0	1	4	4	4	4	0	4	4	0	4	4	4	4	17/ 74	32/ 74	923/ 83
15. Id corr place of dec point in mult/div	3 of 4	3	3	3	4	4	2	4	4	1	4	1	4	4	4	4	4	3	4	18/ 78	30/ 70	660/ 59
16. Add/subtract fractions and mixed numbers	3 of 4	0	2	0	2	2	0	2	3	1	4	0	1	4	1	2	3	1	4	6/ 26	13/ 30	374/ 34
17. Multiply fractions and mixed numbers	3 of 4	2	1	2	2	0	2	1	1	2	2	2	4	2	2	1	3	1	2	3/ 13	6/ 14	304/ 27
18. Determine the percent of a number	3 of 4	1	2	0	4	2	3	4	0	3	0	1	0	4	0	2	4	0	4	8/ 35	11/ 26	373/ 34
19. Est sum/diff of whole #'s and decimals	3 of 4	2	3	2	4	1	2	3	1	3	3	2	4	4	1	3	4	3	4	14/ 61	20/ 47	635/ 57
20. Est prod/quot of whole #'s and decimals	3 of 4	3	0	1	4	0	3	1	2	1	3	1	4	1	2	1	4	3	4	9/ 39	12/ 28	403/ 36
21. Est frac parts/percents of whole #'s	3 of 4	0	0	2	4	0	3	3	0	2	3	1	2	2	1	3	3	4	2	7/ 30	11/ 26	367/ 33

# INDICATES A SCORE BELOW THE REMEDIAL STANDARD
THIS STUDENT MUST RECEIVE FURTHER DIAGNOSIS

A = ABSENT
V = VOID

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CONNECTICUT MASTERY TESTING PROGRAM

CLASS DIAGNOSTIC REPORT

MATHEMATICS PART 2 OF 2

PAGE 2

TEACHER: W D
GROUP CODE: 75821
SCHOOL: H
SCHOOL CODE:
DISTRICT: B DISTRICT
DISTRICT CODE:

TEST DATE: 10/90

NUMBER OF STUDENTS TESTED: 23

NUMBER OF STUDENTS NEEDING FURTHER DIAGNOSIS IN MATHEMATICS : 6

GRADE: 08 FORM: D

OBJECTIVES	MASTERY CRITERIA # OF ITEMS CORRECT	DWAYNE	YOLANDA	JENNIFE	DANIEL	CHINNIA	JASON	YESENIA	YOLANDA	SHARICE	ANTHONY	BARBARA	TANIKA	LISA	DAISY	WILFRED	SALINA	JASON	PEDRO	NUMBER/PERCENT OF STUDENTS MASTERING EACH OBJECTIVE CLASS #/%	SCHOOL #/%	DISTRICT #/%
PROBLEM SOLVING AND APPLICATIONS																						
22. Add/sub/mult/div with a calculator	3 of 4	4	4	4	4	4	4	4	4	3	4	3	4	4	4	4	4	4	4	23/100	44/100	1069/ 96
23. Interpret graphs, tables and charts	3 of 4	2	2	3	2	1	4	4	4	1	3	2	3	2	3	3	3	3	2	14/ 61	24/ 55	722/ 65
24. Solve 1-, 2-step prob-whole #'s/decimals	3 of 4	2	1	3	3	2	3	3	3	2	3	2	3	1	3	3	3	3	3	15/ 65	24/ 55	651/ 58
25. Solve 1- and 2-step problems-fractions	3 of 4	1	2	1	4	1	1	3	2	2	3	2	4	1	3	2	4	2	4	8/ 35	13/ 30	390/ 35
26. Solve problems involving measurement	3 of 4	1	0	0	4	2	2	0	0	1	0	1	3	2	1	2	4	0	1	3/ 13	8/ 18	204/ 18
27. Solve probs with elementary probability	3 of 4	1	2	3	4	2	2	2	2	2	4	2	1	3	2	3	4	4	0	10/ 43	17/ 39	475/ 43
28. Estimate a reasonable answer	3 of 4	3	2	3	4	4	1	3	2	4	3	1	3	4	4	3	4	3	3	17/ 74	30/ 70	790/ 71
29. Solve problems with extraneous info	3 of 4	2	1	2	4	1	4	2	2	2	3	1	4	4	2	3	4	3	1	8/ 35	14/ 32	457/ 41
30. Identify needed information in problems	3 of 4	1	0	1	4	2	3	2	1	3	2	2	3	2	1	3	4	4	2	8/ 35	16/ 36	605/ 54
31. Solve process problems - organizing data	3 of 4	2	2	2	2	3	4	1	1	2	1	1	2	3	2	3	3	1	1	8/ 35	11/ 25	373/ 33
MEASUREMENT AND GEOMETRY																						
32. Identify figures using geometric terms	3 of 4	3	0	2	4	2	1	1	2	3	0	2	2	3	1	2	2	3	3	6/ 26	17/ 39	434/ 39
33. Measure/determine perimeters/areas	3 of 4	1	2	1	1	2	1	1	1	0	1	3	1	2	2	2	3	1	2	2/ 9	4/ 9	176/ 16
34. Est length/area/volume/angle measure	3 of 4	2	0	3	3	1	4	2	1	2	2	2	3	4	3	2	4	3	4	11/ 48	20/ 45	551/ 49
35. Pick approp metric/cust measures & units	3 of 4	2	1	3	3	2	3	2	3	2	3	2	4	4	3	3	4	4	4	16/ 70	27/ 61	737/ 66
36. Conversion within measurement systems	3 of 4	2	0	1	1	1	1	1	2	1	1	1	4	2	2	2	3	0	2	3/ 13	9/ 20	336/ 30
																				AVERAGE NUMBER OF OBJECTIVES MASTERED		
TOTAL NUMBER OF OBJECTIVES MASTERED		12	10	17	29	10	18	21	15	18	26	5	28	24	14	23	35	25	26	19.2	17.9	19.4
																				NUMBER/PERCENT OF STUDENTS BELOW REMEDIAL STANDARDS		
NUMBER OF ITEMS CORRECT (MATHEMATICS REMEDIAL STANDARD)	78 OF 144	* 77	* 63	81	124	* 68	90	94	82	89	100	* 61	114	105	80	101	132	93	115	6/ 26	16/ 37	344/ 31

* INDICATES A SCORE BELOW THE REMEDIAL STANDARD.
THIS STUDENT MUST RECEIVE FURTHER DIAGNOSIS.

A = ABSENT
V = VOID

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THE PSYCHOLOGICAL CORPORATION

CONNECTICUT MASTERY TESTING PROGRAM

SCHOOL BY CLASS REPORT

GRADE: 08 FORM: D

MATHEMATICS

PART 2 OF 2

SCHOOL: H
SCHOOL CODE:
DISTRICT: B DISTRICT
DISTRICT CODE:
TEST DATE: 10/90
Scores indicate Number/Percent of students mastering each objective

		75821	75831	SCHOOL	DISTRICT
NUMBER OF STUDENTS TESTED		23	21	44	1121
OBJECTIVES	MASTERY CRITERIA	#/%	#/%	#/%	#/%
PROBLEM SOLVING AND APPLICATIONS					
22. Add/sub/mult/div with a calculator	3 of 4	23/100	21/100	44/100	1069/ 96
23. Interpret graphs, tables and charts	3 of 4	14/ 61	10/ 48	24/ 55	722/ 65
24. Solve 1-, 2-step prob-whole #'s/decimals	3 of 4	15/ 65	9/ 43	24/ 55	651/ 58
25. Solve 1- and 2-step problems-fractions	3 of 4	8/ 35	5/ 24	13/ 30	390/ 35
26. Solve problems involving measurement	3 of 4	3/ 13	5/ 24	8/ 18	204/ 18
27. Solve probs with elementary probability	3 of 4	10/ 43	7/ 33	17/ 39	475/ 43
28. Estimate a reasonable answer	3 of 4	17/ 74	13/ 65	30/ 70	790/ 71
29. Solve problems with extraneous info	3 of 4	8/ 35	6/ 29	14/ 32	457/ 41
30. Identify needed information in problems	3 of 4	8/ 35	8/ 38	16/ 36	605/ 54
31. Solve process problems - organizing data	3 of 4	8/ 35	3/ 14	11/ 25	373/ 33
MEASUREMENT AND GEOMETRY					
32. Identify figures using geometric terms	3 of 4	6/ 26	11/ 52	17/ 39	434/ 39
33. Measure/determine perimeters/areas	3 of 4	2/ 9	2/ 10	4/ 9	176/ 16
34. Est length/area/volume/angle measure	3 of 4	11/ 48	9/ 43	20/ 45	551/ 49
35. Pick approp metric/cust measures & units	3 of 4	16/ 70	11/ 52	27/ 61	737/ 66
36. Conversion within measurement systems	3 of 4	3/ 13	6/ 29	9/ 20	336/ 30
AVERAGE NUMBER OF OBJECTIVES MASTERED		19.2	16.4	17.9	19.4
NUMBER/PERCENT OF STUDENTS BELOW REMEDIAL STANDARD*		6/ 26	10/ 50	16/ 37	344/ 31

* Remedial Standard is 78 of 144 Items Correct.

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CONNECTICUT MASTERY TESTING PROGRAM

DISTRICT BY SCHOOL REPORT

GRADE: 08 FORM: D

MATHEMATICS

PART 1 OF 2

DISTRICT: B DISTRICT
DISTRICT CODE:
TEST DATE: 10/90
Scores indicate Number/Percent of students mastering each objective

		SCHOOL A	SCHOOL B	SCHOOL C	SCHOOL D	SCHOOL E	SCHOOL F	SCHOOL G	SCHOOL H		DISTRICT
NUMBER OF STUDENTS TESTED		44	44	44	136	74	73	32	145		1121
OBJECTIVES	MASTERY CRITERIA	#/%	#/%	#/%	#/%	#/%	#/%	#/%	#/%		#/%
CONCEPTUAL UNDERSTANDINGS											
1. Order fractions	3 of 4	17/ 39	39/ 89	14/ 32	58/ 44	27/ 37	23/ 32	13/ 42	65/ 45		503/ 45
2. Order decimals	3 of 4	23/ 52	38/ 86	18/ 41	81/ 61	41/ 56	33/ 45	11/ 35	80/ 56		621/ 56
3. Round whole numbers	3 of 4	36/ 82	44/100	32/ 73	114/ 86	67/ 92	62/ 85	20/ 65	120/ 83		939/ 85
4. Round decimals to the nearest 1, .1, .01	3 of 4	24/ 55	40/ 91	24/ 55	90/ 68	49/ 67	44/ 60	8/ 26	77/ 53		659/ 59
5. Mult/div whole #'s/dec by 10, 100, 1000	3 of 4	28/ 64	35/ 80	21/ 48	79/ 59	49/ 67	36/ 49	12/ 39	76/ 53		657/ 59
6. Identify frac/dec/percents from pictures	3 of 4	21/ 48	31/ 70	17/ 39	64/ 48	29/ 40	20/ 27	8/ 26	53/ 37		436/ 39
7. Convert fractions--decimals	3 of 4	29/ 66	40/ 91	20/ 45	93/ 70	48/ 66	37/ 51	15/ 48	90/ 63		702/ 63
8. Convert fractions/decimals--percents	3 of 4	26/ 59	32/ 73	25/ 57	77/ 58	41/ 56	31/ 42	17/ 55	67/ 47		617/ 56
9. Identify points on # lines/scales/grids	3 of 4	36/ 82	42/ 95	40/ 91	120/ 90	63/ 86	62/ 85	21/ 68	117/ 81		962/ 87
10. Identify ratios and fractional parts	3 of 4	27/ 61	43/ 98	29/ 66	93/ 70	40/ 55	44/ 60	15/ 48	83/ 58		690/ 62
11. Identify procedure-frac/dec estimation	3 of 4	27/ 61	37/ 84	18/ 41	96/ 72	46/ 63	33/ 45	10/ 32	80/ 56		628/ 57
COMPUTATIONAL SKILLS											
12. Add and subtract whole numbers	3 of 4	41/ 95	44/100	40/ 91	129/ 96	67/ 92	69/ 95	29/ 94	136/ 94		1048/ 94
13. Multiply and divide whole numbers	3 of 4	43/100	43/ 98	43/ 98	120/ 90	68/ 93	65/ 89	26/ 84	132/ 92		1034/ 93
14. Add and subtract decimals	3 of 4	32/ 74	36/ 82	31/ 70	116/ 87	66/ 90	60/ 82	27/ 87	118/ 82		923/ 83
15. Id corr place of dec point in mult/div	3 of 4	30/ 70	37/ 84	26/ 59	80/ 60	44/ 60	32/ 44	8/ 26	86/ 60		660/ 59
16. Add/subtract fractions and mixed numbers	3 of 4	13/ 30	29/ 66	20/ 45	56/ 42	17/ 23	11/ 15	4/ 13	48/ 33		374/ 34
17. Multiply fractions and mixed numbers	3 of 4	6/ 14	37/ 84	20/ 45	50/ 37	12/ 16	11/ 15	1/ 3	32/ 22		304/ 27
18. Determine the percent of a number	3 of 4	11/ 26	27/ 61	17/ 39	49/ 37	29/ 40	13/ 18	6/ 19	43/ 30		373/ 34
19. Est sum/diff of whole #'s and decimals	3 of 4	20/ 47	38/ 86	17/ 39	78/ 58	49/ 67	41/ 56	16/ 52	67/ 47		635/ 57
20. Est prod/quot of whole #'s and decimals	3 of 4	12/ 28	26/ 59	12/ 27	62/ 46	25/ 34	20/ 27	4/ 13	43/ 30		403/ 36
21. Est frac parts/percents of whole #'s	3 of 4	11/ 26	21/ 48	15/ 34	55/ 41	29/ 40	16/ 22	4/ 13	47/ 33		367/ 33

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THE PSYCHOLOGICAL CORPORATION

CONNECTICUT MASTERY TESTING PROGRAM

DISTRICT BY SCHOOL REPORT

GRADE: 08 FORM: D

MATHEMATICS

PART 2 OF 2

DISTRICT: B DISTRICT
DISTRICT CODE:
TEST DATE: 10/90
Scores indicate Number/Percent of students mastering each objective

OBJECTIVES	MASTERY CRITERIA	SCHOOL A	SCHOOL B	SCHOOL C	SCHOOL D	SCHOOL E	SCHOOL F	SCHOOL G	SCHOOL H		DISTRICT
NUMBER OF STUDENTS TESTED		44	44	44	136	74	73	32	145		1121
		#/%	#/%	#/%	#/%	#/%	#/%	#/%	#/%		#/%
PROBLEM SOLVING AND APPLICATIONS											
22. Add/sub/mult/div with a calculator	3 of 4	44/100	44/100	40/ 91	128/ 96	72/ 97	67/ 92	31/100	136/ 94		1069/ 96
23. Interpret graphs, tables and charts	3 of 4	24/ 55	36/ 82	22/ 50	89/ 66	50/ 68	38/ 52	19/ 61	96/ 67		722/ 65
24. Solve 1-, 2-step prob-whole #'s/decimals	3 of 4	24/ 55	43/ 98	22/ 50	86/ 64	49/ 66	27/ 37	11/ 35	85/ 59		651/ 58
25. Solve 1- and 2-step problems-fractions	3 of 4	13/ 30	32/ 73	15/ 34	57/ 43	22/ 30	14/ 19	5/ 16	46/ 32		390/ 35
26. Solve problems involving measurement	3 of 4	8/ 18	18/ 41	5/ 11	23/ 17	13/ 18	11/ 15	3/ 10	27/ 19		204/ 18
27. Solve probs with elementary probability	3 of 4	17/ 39	28/ 64	19/ 43	71/ 53	25/ 34	24/ 33	12/ 39	43/ 30		475/ 43
28. Estimate a reasonable answer	3 of 4	30/ 70	40/ 91	30/ 68	99/ 74	51/ 70	49/ 67	22/ 71	105/ 73		790/ 71
29. Solve problems with extraneous info	3 of 4	14/ 32	36/ 82	12/ 27	57/ 43	30/ 41	22/ 30	14/ 45	65/ 45		457/ 41
30. Identify needed information in problems	3 of 4	16/ 36	34/ 77	32/ 73	72/ 54	40/ 54	35/ 48	14/ 45	81/ 56		605/ 54
31. Solve process problems - organizing data	3 of 4	11/ 25	25/ 57	11/ 25	49/ 37	28/ 38	17/ 23	11/ 35	48/ 33		373/ 33
MEASUREMENT AND GEOMETRY											
32. Identify figures using geometric terms	3 of 4	17/ 39	32/ 73	17/ 39	52/ 39	34/ 46	20/ 27	10/ 32	59/ 41		434/ 39
33. Measure/determine perimeters/areas	3 of 4	4/ 9	22/ 50	6/ 14	29/ 22	9/ 12	13/ 18	2/ 6	20/ 14		176/ 16
34. Est length/area/volume/angle measure	3 of 4	20/ 45	35/ 80	18/ 41	70/ 52	41/ 55	25/ 34	19/ 61	56/ 39		551/ 49
35. Pick approp metric/cust measures & units	3 of 4	27/ 61	35/ 80	25/ 57	87/ 65	51/ 69	42/ 58	15/ 48	105/ 73		737/ 66
36. Conversion within measurement systems	3 of 4	9/ 20	19/ 43	12/ 27	48/ 36	20/ 27	25/ 34	4/ 13	43/ 30		336/ 30
AVERAGE NUMBER OF OBJECTIVES MASTERED		17.9	28.1	17.8	20.8	19.8	16.3	15.4	18.6		19.4
NUMBER/PERCENT OF STUDENTS BELOW REMEDIAL STANDARD*		16/ 37	0/ 0	17/ 39	33/ 25	18/ 25	38/ 52	12/ 41	48/ 34		344/ 31

* Remedial Standard is 78 of 144 Items Correct.

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THE PSYCHOLOGICAL CORPORATION

CONNECTICUT MASTERY TESTING PROGRAM

CLASS DIAGNOSTIC REPORT

LANGUAGE ARTS

PAGE 1

TEACHER: W D
GROUP CODE: 50831
SCHOOL: H
SCHOOL CODE:
DISTRICT: B DISTRICT
DISTRICT CODE:

GRADE: 08 FORM: D

TEST DATE: 10/90

NUMBER OF STUDENTS TESTED: 23

NUMBER OF STUDENTS NEEDING FURTHER DIAGNOSIS
IN WRITING : 0
IN READING : 0

OBJECTIVES	MASTERY CRITERIA # OF ITEMS CORRECT	DWAYNE	YOLANDA	JENNIFE	DANIEL	CHINNIA	JASON	YESENIA	YOLANDA	SHARICE	ANTHONY	BARBARA	TANIKA	LISA	DAISY	WILFRED	SALINA	JASON	PEDRO	NUMBER/PERCENT OF STUDENTS MASTERING EACH OBJECTIVE		
																				CLASS #/%	SCHOOL #/%	DISTRICT #/%
WRITING MECHANICS																						
1. Capitalization and Punctuation	9 of 12	11	10	12	12	11	12	10	11	12	12	10	11	11	9	10	10	7	11	21/ 95	37/ 86	573/ 52
2. Spelling	6 of 8	6	6	6	8	6	6	7	8	8	7	8	8	8	7	7	8	7	8	23/100	42/ 95	817/ 75
3. Agreement	11 of 15	14	13	15	15	14	15	14	14	15	15	13	15	15	14	15	13	15	15	22/100	41/ 95	892/ 81
4. Tone	3 of 4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	22/100	42/ 98	821/ 75
STUDY SKILLS																						
5. Locating Information	9 of 12	12	12	12	11	12	12	11	12	11	12	12	12	12	12	12	11	12	12	22/100	42/ 98	798/ 73
6. Notetaking and Outlining	3 of 4	3	4	4	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	22/100	39/ 91	645/ 60
LISTENING COMPREHENSION																						
7. Literal	3 of 4	3	2	4	3	2	4	2	4	3	3	3	2	2	3	3	4	3	4	18/ 78	26/ 59	457/ 42
8. Inferential and Evaluative	12 of 16	12	9	14	15	8	15	13	8	14	15	12	9	10	14	13	11	14	14	15/ 65	23/ 52	356/ 33
READING COMPREHENSION																						
9. Literal	6 of 8	7	5	7	7	6	8	6	8	8	8	7	6	7	8	7	7	7	8	22/ 96	37/ 84	677/ 61
10. Inferential	10 of 14	12	8	13	13	12	14	13	11	12	13	13	12	11	12	13	14	12	14	21/ 91	37/ 84	440/ 40
11. Evaluative	10 of 14	11	9	13	13	12	12	12	11	13	13	13	13	13	14	12	13	14	14	21/ 91	36/ 82	390/ 35
																				AVERAGE NUMBER OF OBJECTIVES MASTERED		
TOTAL NUMBER OF OBJECTIVES MASTERED		11	6	11	11	9	11	10	10	11	11	11	9	9	11	11	10	10	11	10.1	9.2	6.3
HOLISTIC MEASURES OF WRITING AND READING	REMEDIAL STANDARDS																			NUMBER/PERCENT OF STUDENTS BELOW REMEDIAL STANDARDS		
WRITING SAMPLE	4 OF 8	6	5	8	6	7	V	5	5	7	8	4	6	7	5	7	8	5	8	0/ 0	2/ 5	188/ 17
**ANALYTIC SCORES: FOCUS												3										
ORGANIZATION												1										
SUPPORT/ELABORATION												1										
CONVENTIONS												2										
DEGREES OF READING POWER (DRP)™	55 DRP UNITS	68	69	81	71	68	66	68	63	77	73	66	66	73	73	73	77	72	84	0/ 0	0/ 0	474/ 43

* INDICATES A SCORE BELOW THE REMEDIAL STANDARD. THIS STUDENT MUST RECEIVE FURTHER DIAGNOSIS
** ANALYTIC SCORES ARE GIVEN ONLY FOR THOSE STUDENTS WHO SCORED AT OR BELOW THE REMEDIAL STANDARD
1 = NEEDS REMEDIAL ASSISTANCE 2 = BORDERLINE PERFORMANCE 3 = SATISFACTORY PERFORMANCE

A = ABSENT
V = VOID
NS = NOT SCORABLE

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THE PSYCHOLOGICAL CORPORATION

CONNECTICUT MASTERY TESTING PROGRAM

SCHOOL BY CLASS REPORT

Page 1

GRADE: 08 FORM: D

SCHOOL: H
SCHOOL CODE:
DISTRICT: B DISTRICT
DISTRICT CODE:
TEST DATE: 10/90
Scores indicate Number/Percent of students mastering each objective

LANGUAGE ARTS

		50831	50841	SCHOOL	DISTRICT
NUMBER OF STUDENTS TESTED		23	21	44	1126
OBJECTIVES	MASTERY CRITERIA	#/%	#/%	#/%	#/%
WRITING MECHANICS					
1. Capitalization and Punctuation	9 of 12	21/ 95	16/ 76	37/ 86	573/ 52
2. Spelling	6 of 8	23/100	19/ 90	42/ 95	817/ 75
3. Agreement	11 of 15	22/100	19/ 90	41/ 95	892/ 81
4. Tone	3 of 4	22/100	20/ 95	42/ 98	821/ 75
STUDY SKILLS					
5. Locating Information	9 of 12	22/100	20/ 95	42/ 98	798/ 73
6. Notetaking and Outlining	3 of 4	22/100	17/ 81	39/ 91	645/ 60
LISTENING COMPREHENSION					
7. Literal	3 of 4	18/ 78	8/ 38	26/ 59	457/ 42
8. Inferential and Evaluative	12 of 16	15/ 65	8/ 38	23/ 52	356/ 33
READING COMPREHENSION					
9. Literal	6 of 8	22/ 96	15/ 71	37/ 84	677/ 61
10. Inferential	10 of 14	21/ 91	16/ 76	37/ 84	440/ 40
11. Evaluative	10 of 14	21/ 91	15/ 71	36/ 82	390/ 35
HOLISTIC MEASURES OF WRITING AND READING				#/% OF STUDENTS AT STATED LEVEL	
WRITING SAMPLE NUMBER/PERCENT PRODUCING MATERIAL THAT IS:	HOLISTIC SCORE	#/%	#/%	#/%	#/%
Well written with developed supportive detail	7 or 8	8/ 38	8/ 38	16/ 38	83/ 8
Generally well organized with supportive detail	5 or 6	11/ 52	11/ 52	22/ 52	473/ 44
Minimally proficient	4	2/ 10	0/ 0	2/ 5	335/ 31
Below the remedial standard*	2 or 3	0/ 0	2/ 10	2/ 5	188/ 17
DEGREES OF READING POWER (DRP)™ NUMBER/PERCENT OF STUDENTS	DRP UNIT SCORE	#/%	#/%	#/%	#/%
At/above the reading goal for beginning grade 08	62+	23/100	19/ 90	42/ 95	345/ 31
Below the reading goal for beginning grade 08 but above the remedial standard	55 to 61	0/ 0	2/ 10	2/ 5	282/ 26
Below the remedial standard**	BELOW 55	0/ 0	0/ 0	0/ 0	474/ 43
AVERAGE NUMBER OF OBJECTIVES MASTERED IN LANGUAGE ARTS		10.1	8.2	9.2	6.3
AVERAGE HOLISTIC WRITING SCORE		6.1	5.9	6.0	4.6
AVERAGE DRP UNIT SCORE		71	68	69	56

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*Remedial Standard is 4 for Writing.
**Remedial Standard is 55 DRP Units for Reading.

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THE PSYCHOLOGICAL CORPORATION

CONNECTICUT MASTERY TESTING PROGRAM

DISTRICT BY SCHOOL REPORT

GRADE: 08 FORM: D

LANGUAGE ARTS

DISTRICT: B DISTRICT
DISTRICT CODE:
TEST DATE: 10/90
Scores indicate Number/Percent of students mastering each objective

		SCHOOL A	SCHOOL B	SCHOOL C	SCHOOL D	SCHOOL E	SCHOOL F	SCHOOL G	SCHOOL H		DISTRICT
NUMBER OF STUDENTS TESTED		44	44	44	137	74	71	31	149		1126
OBJECTIVES	MASTERY CRITERIA	#/%	#/%	#/%	#/%	#/%	#/%	#/%	#/%		#/%
WRITING MECHANICS											
1. Capitalization and Punctuation	9 of 12	37/ 86	35/ 80	28/ 64	59/ 45	44/ 60	23/ 32	8/ 28	77/ 53		573/ 52
2. Spelling	6 of 8	42/ 95	42/ 95	29/ 66	95/ 74	50/ 72	46/ 65	27/ 90	101/ 72		817/ 75
3. Agreement	11 of 15	41/ 95	44/100	37/ 84	105/ 80	59/ 81	48/ 68	23/ 79	113/ 77		892/ 81
4. Tone	3 of 4	42/ 98	41/ 93	40/ 91	92/ 70	51/ 70	43/ 61	24/ 83	105/ 72		821/ 75
STUDY SKILLS											
5. Locating Information	9 of 12	42/ 98	42/ 95	35/ 80	94/ 71	40/ 55	44/ 62	21/ 72	95/ 65		798/ 73
6. Notetaking and Outlining	3 of 4	39/ 91	40/ 91	25/ 57	77/ 62	29/ 42	27/ 38	16/ 55	86/ 62		645/ 60
LISTENING COMPREHENSION											
7. Literal	3 of 4	26/ 59	29/ 66	20/ 45	47/ 37	23/ 33	24/ 34	9/ 30	64/ 45		457/ 42
8. Inferential and Evaluative	12 of 16	23/ 52	26/ 59	8/ 18	41/ 32	26/ 38	13/ 18	8/ 27	41/ 29		356/ 33
READING COMPREHENSION											
9. Literal	6 of 8	37/ 84	39/ 89	26/ 59	80/ 60	43/ 58	31/ 44	14/ 50	95/ 66		677/ 61
10. Inferential	10 of 14	37/ 84	35/ 80	17/ 39	38/ 28	23/ 31	13/ 19	6/ 21	55/ 38		440/ 40
11. Evaluative	10 of 14	36/ 82	24/ 55	14/ 32	45/ 34	18/ 24	12/ 17	5/ 18	54/ 38		390/ 35
HOLISTIC MEASURES OF WRITING AND READING										#/% OF STUDENTS AT STATED LEVEL	
WRITING SAMPLE NUMBER/PERCENT PRODUCING MATERIAL THAT IS:	HOLISTIC SCORE	#/%	#/%	#/%	#/%	#/%	#/%	#/%	#/%		#/%
Well written with developed supportive detail	7 or 8	16/ 38	12/ 27	0/ 0	7/ 5	4/ 6	4/ 6	2/ 6	13/ 9		83/ 8
Generally well organized with supportive detail	5 or 6	22/ 52	25/ 57	18/ 41	59/ 45	35/ 49	21/ 30	8/ 26	59/ 43		473/ 44
Minimally proficient	4	2/ 5	5/ 11	10/ 23	50/ 38	21/ 30	24/ 34	13/ 42	45/ 33		335/ 31
Below the remedial standard*	2 or 3	2/ 5	2/ 5	16/ 36	16/ 12	11/ 15	21/ 30	8/ 26	20/ 15		188/ 17
DEGREES OF READING POWER (DRP)™ NUMBER/PERCENT OF STUDENTS	DRP UNIT SCORE	#/%	#/%	#/%	#/%	#/%	#/%	#/%	#/%		#/%
At/above the reading goal for beginning grade 08	62+	42/ 95	33/ 75	8/ 19	30/ 23	15/ 20	12/ 17	2/ 7	44/ 31		345/ 31
Below the reading goal for beginning grade 08 but above the remedial standard	55 to 61	2/ 5	4/ 9	17/ 40	36/ 27	19/ 26	11/ 15	10/ 34	39/ 27		282/ 26
Below the remedial standard**	BELOW 55	0/ 0	7/ 16	18/ 42	67/ 50	40/ 54	48/ 68	17/ 59	59/ 42		474/ 43
AVERAGE NUMBER OF OBJECTIVES MASTERED IN LANGUAGE ARTS		9.2	9.0	6.3	5.9	5.7	4.6	5.6	6.3		6.3
AVERAGE HOLISTIC WRITING SCORE		6.0	5.8	4.0	4.6	4.6	4.2	4.3	4.7		4.6
AVERAGE DRP UNIT SCORE		69	65	56	54	53	50	51	55		56

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*Remedial Standard is 4 for Writing.
**Remedial Standard is 55 DRP Units for Reading.

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Connecticut Mastery Testing Program

GRADE 8

CONNECTICUT
EERA

PARENT / STUDENT DIAGNOSTIC REPORT

Your child's scores on the Connecticut Mastery Test are reported inside.

For a description of the Connecticut Mastery Testing Program, see the back cover of this folder.

For general information about your local district's testing program, please contact your superintendent of schools.

For further information on the Connecticut Mastery Testing Program, contact: Connecticut State Department of Education, Student Assessment and Testing, Box 2219, Hartford, Connecticut 06145, (203) 566-4008.

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CONNECTICUT MASTERY TESTING PROGRAM

GRADE 8 REPORT

MATHEMATICS

TEACHER: S I
SCHOOL: W
DISTRICT: W DISTRICT

GRADE: 08
TEST DATE: 10/90
FORM: D

STUDENT OBJECTIVES ANALYSIS
FOR

C P

OBJECTIVES TESTED	MASTERY CRITERIA NUMBER CORRECT	STUDENT SCORE
CONCEPTUAL UNDERSTANDINGS		
1. Order fractions	3 of 4	4
2. Order decimals	3 of 4	4
3. Round whole numbers	3 of 4	4
4. Round decimals to the nearest whole number, tenth and hundredth	3 of 4	4
5. Multiply and divide whole numbers and decimals by 10, 100 and 1000	3 of 4	4
6. Identify fractions, decimals and percents from pictorial representations	3 of 4	4
7. Convert fractions to decimals and vice versa	3 of 4	4
8. Convert fractions and decimals to percents and vice versa	3 of 4	4
9. Identify points on number lines, scales and grids	3 of 4	4
10. Identify ratios and fractional parts from given data	3 of 4	4
11. Identify an appropriate procedure for making estimates with decimals and fractions	3 of 4	4
COMPUTATIONAL SKILLS		
12. Add and subtract whole numbers less than 10,000	3 of 4	4
13. Multiply and divide 2- and 3-digit whole numbers by 1- and 2-digit numbers	3 of 4	4
14. Add and subtract decimals (to hundredths) in horizontal form	3 of 4	4
15. Identify the correct placement of the decimal point in multiplication and division of decimals	3 of 4	4
16. Add and subtract fractions and mixed numbers	3 of 4	4
17. Multiply fractions and mixed numbers	3 of 4	0
18. Determine the percent of a number	3 of 4	4
19. Estimate sums and differences of whole numbers and decimals including making change	3 of 4	3
20. Estimate products and quotients of whole numbers and decimals	3 of 4	3
21. Estimate fractional parts and percents of whole numbers and money amounts	3 of 4	3
PROBLEM SOLVING AND APPLICATIONS (with calculator available)		
22. Compute sums, differences, products and quotients using a calculator	3 of 4	4
23. Interpret graphs, tables and charts	3 of 4	3
24. Solve 1- and 2-step problems involving whole numbers and decimals including averaging	3 of 4	4
25. Solve 1- and 2-step problems involving fractions	3 of 4	3
26. Solve problems involving measurement	3 of 4	3
27. Solve problems involving elementary probability	3 of 4	4
28. Estimate a reasonable answer to a given problem (without calculator available)	3 of 4	4
29. Solve problems with extraneous information	3 of 4	4
30. Identify needed information in problem situations	3 of 4	4
31. Solve process problems involving the organization of data	3 of 4	4
MEASUREMENT AND GEOMETRY (with calculator available)		
32. Identify figures using geometric terms	3 of 4	4
33. Measure and determine perimeters and areas	3 of 4	4
34. Estimate lengths, areas, volumes and angle measures	3 of 4	4
35. Select appropriate metric or customary measures and units	3 of 4	4
36. Make measurement conversions within systems	3 of 4	1

This student has mastered 34 out of 36 mathematic objectives and correctly answered 131 out of 144 items.

TOTAL NUMBER OF OBJECTIVES MASTERED (out of 36) = 34
NUMBER OF ITEMS CORRECT (out of 144) = 131
(Remedial Standard is 78 of 144 items correct)

COPY 2

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THE PSYCHOLOGICAL CORPORATION®
HARCOURT BRACE JOVANOVICH, INC.

CONNECTICUT MASTERY TESTING PROGRAM

GRADE 8 REPORT

LANGUAGE ARTS

TEACHER: S I
SCHOOL: M
DISTRICT: M DISTRICT

GRADE: 08
TEST DATE: 10/90
FORM: D

STUDENT OBJECTIVES ANALYSIS FOR

C P

OBJECTIVES TESTED	MASTERY CRITERIA NUMBER CORRECT	STUDENT SCORE
WRITING MECHANICS		
1. Capitalization and Punctuation	9 of 12	10
2. Spelling	6 of 8	8
3. Agreement (verb tense, subject-object-verb, and pronoun referent)	11 of 15	13
4. Tone	3 of 4	4
STUDY SKILLS		
5. Locating Information (schedules, maps, indexes, glossaries, dictionaries)	9 of 12	10
6. Notetaking and Outlining	3 of 4	4
LISTENING COMPREHENSION		
7. Literal (understands the meanings of ideas clearly stated by a speaker)	3 of 4	3
8. Inferential and Evaluative (understands the meanings of ideas not clearly stated, but implied, by a speaker and is able to make critical judgments about them)	12 of 16	11
READING COMPREHENSION		
9. Literal (understands the meanings of ideas clearly stated within a passage)	6 of 8	6
10. Inferential (understands the meanings of ideas not stated, but implied, within a passage)	10 of 14	13
11. Evaluative (able to make critical judgments about statements and inferences within a passage)	10 of 14	11

TOTAL NUMBER OF OBJECTIVES MASTERED (out of 11) = 10

WRITING SAMPLE	STUDENT SCORE
Holistic Writing Score (Remedial Standard is 4 of 8)	4

This student is minimally proficient in writing.

DEGREES OF READING POWER (DRP)™	STUDENT SCORE
DRP Units (Remedial Standard is 55 DRP Units Reading Goal is 62 DRP Units)	71

This student has scored above the reading goal for beginning eighth graders.

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THE PSYCHOLOGICAL CORPORATION®
HARCOURT BRACE JOVANOVICH, INC.

PARENT/STUDENT DIAGNOSTIC REPORT

Dear Parent:

Inside you will find the results of the Connecticut Mastery Test administered to your child earlier this fall. The test results help to show you and the school district's professional staff how well your child is performing on those skills identified by the State of Connecticut as important for students entering eighth grade to have mastered.

These tests are designed to determine the specific skill levels of students. The test results will be used to:

- provide your school with information for use in assessing the progress of individual students over time;
- provide your school with information based on which improvements in the general instructional program can be made; and
- provide information on appropriate basic skills remedial assistance for students so indicated.

Mastery testing will occur each fall in grades four, six, and eight for all students and in high school for those students for whom retesting is required.

If you have any questions about these test results, please ask your child's teacher(s). The teacher(s) will share with you other observations and recommendations based on experience in working with your son or daughter during the last several months.

Description of the Test

Mathematics: The mathematics test assesses thirty-six (36) specific objectives in four general areas of: (1) Conceptual Understandings; (2) Computational Skills; (3) Problem Solving/Applications; and (4) Measurement/Geometry. Test items evaluate a student's ability to: order fractions and decimals; round whole numbers and decimals; make conversions among fractions, decimals and percents; compute with whole numbers, decimals and fractions; estimate with whole numbers, decimals and fractions; solve 1- and 2-step problems involving whole numbers, decimals, fractions, measurement and elementary probability (with a calculator available); estimate a reasonable answer to a problem; solve problems with extraneous information and identify needed information in problem situations; measure and/or estimate lengths, areas, volumes and angle measures; make measurement conversions; and select appropriate measurement units.

Language Arts: The language arts test covers two general areas: Reading/Listening Comprehension, and Writing/Study Skills. There are eleven (11) objectives and two holistic measures, one in reading and one in writing.

The content of Reading/Listening Comprehension consists of narrative, expository, and persuasive passages on a variety of topics measuring a student's reading and listening ability in: (1) Literal Comprehension; (2) Inferential or Interpretive Comprehension; and (3) Evaluative or Critical Comprehension. Audio tapes are used to assess a student's listening comprehension ability. Also used is the "Degrees of Reading Power" (DRP) Test which includes eleven (11) passages and seventy-seven (77) test items. It is designed to measure a student's ability to understand nonfiction English prose on a graduated scale of reading difficulty.

The content of Writing/Study Skills consists of three components. First, writing skills are directly assessed. A student is asked to write on a designated topic. The writing is judged on the student's demonstrated ability to convey information in a coherent and organized fashion. Second, the test assesses the mechanics of good writing, which are defined as: (1) Capitalization and Punctuation; (2) Spelling; (3) Agreement; and (4) Tone. Finally the test assesses Study Skills, which have been defined as Locating Information (schedules, maps, index references, and dictionary usage) and Outlining and Notetaking. This part of the test measures a student's ability to find and use information from listed sources, and to make notes from audio tapes.

Appendix H

Fall 1990 Grade Eight
State by District Report:
Mathematics

STATE BY DISTRICT REPORT

MATHEMATICS GRADE 8

TEST DATE: 10/90

OBJECTIVES TESTED

SCORES INDICATE THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE

DISTRICT	# OF STUDENTS TESTED	TOC	ERG	CONCEPTUAL UNDERSTANDINGS: order fractions	order decimals	round whole numbers	round decimals to the nearest 1, .1, .01	mult/div whole numbers by 10, 100, 1000	id fract, dec, percents from pictures	convert fractions to decimals vice versa	convert fract/dec to percent, vice versa	id points on number lines, scales, grids	id ratios and fractional parts from data	id procedure for frac/dec estimation	COMPUTATIONAL SKILLS: add and subtract whole numbers	multiply and divide whole numbers	add and subtract decimals	id corr place of dec point in mult/div	add/sub fractions and mixed numbers	multiply fractions and mixed numbers	determine the percent of a number	est sum/diff of whole numbers and dec	est prod/quot of whole numbers and dec	est frac parts/% of whole numbers	PROBLEM SOLVING AND APPLICATIONS: add/sub/mult/div with calculator	interpret graphs, tables and charts	solve 1-, 2-step probs-whole #s and dec	solve 1-, 2-step problems-fractions	solve problems involving measurement	solve problems involving elem probability	estimate a reasonable answer	solve extraneous information problems	id needed info in problem situations	solve process problems-data organization	MEASUREMENT AND GEOMETRY: identify figures using geometric terms	measure/determine perimeters/areas	est length/area/volume/angle measure	pick approp metric/cust measures & units	conversion within measurement systems	TOTAL MATH: Average Number of Objectives Mastered	Percent of Students Needing Further Diagnosis
ANSONIA	124	5	6	71	82	95	76	77	69	86	89	98	85	82	95	99	95	84	60	65	76	88	65	66	99	87	92	64	35	65	88	77	85	60	56	32	73	69	47	27.4	1
ASHFORD	42	6	4	88	98	98	100	85	85	95	95	98	93	93	83	95	86	81	69	71	74	93	74	90	98	93	85	80	68	83	95	88	88	73	73	63	80	95	68	30.7	3
AVON	162	4	1	87	89	97	93	91	84	92	91	97	94	90	98	99	95	88	86	73	78	91	77	80	100	95	95	86	70	91	89	93	88	73	91	71	80	94	80	31.6	2
BERLIN	160	4	3	79	88	99	79	79	73	80	74	98	81	86	96	98	91	79	63	57	51	89	69	68	99	91	84	68	40	64	86	81	79	59	74	35	86	77	44	27.4	3
BETHEL	213	4	4	86	82	92	74	84	72	83	94	98	89	83	98	99	94	88	82	87	79	94	76	70	100	93	91	70	41	69	84	80	82	64	83	56	77	82	50	29.2	4
BLOOMFIELD	187	2	4	71	76	95	67	65	62	76	76	94	72	73	96	96	85	63	48	40	56	74	49	50	100	82	78	58	26	60	75	67	68	50	57	26	60	76	37	24.1	10
BOLTON	56	4	2	88	84	98	86	91	86	91	86	96	91	88	95	98	91	89	66	75	68	96	75	73	100	88	96	82	66	80	91	93	82	70	80	59	88	86	63	30.3	2
BOZRAH	30	5	3	83	67	90	77	83	73	90	90	97	77	80	97	100	100	83	60	73	60	87	77	60	100	90	90	73	40	70	90	83	80	70	63	50	73	83	53	28.1	3
BRANFORD	217	4	4	82	84	96	80	85	70	86	72	100	91	84	96	98	93	84	64	67	57	88	68	58	100	89	87	63	43	72	85	75	80	54	68	47	68	80	53	27.7	6
BRIDGEPORT	1121	1	7	45	56	85	59	59	39	63	56	87	62	57	94	93	83	59	34	27	34	57	36	33	96	65	58	35	18	43	71	41	54	33	39	16	49	66	30	19.4	31
BRISTOL	516	3	6	68	74	91	74	69	63	81	77	95	74	73	95	97	88	68	56	51	53	86	58	58	99	86	87	60	37	65	81	71	77	53	60	30	67	78	45	25.5	8
BROOKFIELD	192	4	2	91	91	95	92	81	87	89	91	98	92	92	95	96	93	71	72	56	69	94	79	74	100	94	96	78	54	85	86	88	84	63	81	58	81	88	62	30.0	1
BROOKLYN	89	6	5	74	71	93	73	80	63	81	72	100	75	74	94	98	80	72	53	52	51	87	46	57	99	89	79	56	38	60	75	83	69	46	55	42	66	82	38	25.2	8
CANAAN	11	6	4	90	70	90	100	80	60	80	90	100	70	90	82	91	64	73	55	36	27	91	82	55	100	91	82	82	36	64	82	73	91	55	91	36	73	82	27	27.0	0
CANTERBURY	69	6	3	88	81	88	80	72	75	86	87	99	78	84	100	100	96	77	71	70	68	88	67	68	100	84	91	71	33	78	80	78	75	51	75	51	84	81	38	27.9	4
CANTON	87	4	2	83	82	94	75	84	84	91	94	99	87	86	94	99	94	74	71	76	79	92	74	80	98	91	95	68	57	78	91	82	82	57	72	71	72	89	66	29.6	1
CHESHIRE	277	2	2	84	85	97	82	80	73	85	83	98	85	88	96	98	91	85	63	59	66	89	75	67	98	89	88	73	54	74	89	84	83	66	59	44	78	83	57	28.6	6
CLINTON	140	5	4	81	81	94	76	76	71	77	76	99	81	77	96	96	89	71	56	44	50	82	63	56	99	89	90	62	41	66	76	76	83	51	61	35	69	77	41	26.1	6
COLCHESTER	108	5	5	73	64	90	69	82	59	79	73	98	81	83	95	94	85	73	41	36	50	88	66	50	100	87	88	57	33	69	85	77	81	53	52	27	69	73	33	25.1	11
COLUMBIA	47	5	3	81	91	96	89	89	77	91	87	98	79	91	100	98	85	81	72	60	83	83	83	83	100	91	96	74	77	72	87	85	81	72	89	77	87	87	81	30.6	4
CORNWALL	13	6	3	100	100	100	92	100	100	100	100	100	100	100	100	100	100	100	85	100	92	100	100	100	100	100	100	77	92	92	100	100	92	100	100	92	85	100	100	35.0	0
COVENTRY	98	4	3	86	83	92	72	77	62	78	76	94	83	82	94	96	86	60	49	34	60	87	63	63	98	90	85	66	47	67	76	69	76	62	63	35	65	87	53	26.1	8
CROMWELL	106	4	4	83	75	98	81	73	73	76	79	97	84	86	100	97	[illegible]	67	70	45	60	90	71	68	100	90	92	70	42	75	84	86	84	59	66	41	79	83	43	27.6	4
DANBURY	555	3	6	67	67	92	72	69	57	74	72	94	72	73	94	94	86	64	44	32	48	78	57	51	98	82	80	52	34	61	78	65	72	48	58	31	64	80	39	24.0	17
DARIEN	163	2	1	91	83	95	82	88	82	89	83	99	88	89	98	99	93	81	69	66	63	93	75	70	100	93	93	78	67	76	91	85	87	63	79	55	82	90	74	29.9	2
DERBY	82	5	6	59	56	94	52	72	40	78	56	90	68	72	96	96	79	67	29	37	40	74	40	33	99	82	78	37	26	56	82	70	70	48	48	21	56	77	37	22.1	13
EASTFORD	17	6	3	82	76	88	71	71	41	88	82	94	82	76	100	100	88	82	29	47	29	76	71	47	94	88	88	47	29	65	76	71	82	41	47	35	59	82	29	24.6	6
EAST GRANBY	46	4	2	85	80	98	76	76	78	85	83	98	78	91	100	100	93	80	64	69	73	89	82	76	100	80	96	69	56	73	93	80	93	58	78	49	76	91	60	29.2	2

STATE BY DISTRICT REPORT

MATHEMATICS GRADE 8

TEST DATE: 10/90

OBJECTIVES TESTED

SCORES INDICATE THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE

DISTRICT	# OF STUDENTS TESTED	TOC	ERG	CONCEPTUAL UNDERSTANDINGS											COMPUTATIONAL SKILLS										PROBLEM SOLVING AND APPLICATIONS										MEASUREMENT AND GEOMETRY					TOTAL MATH	
				order fractions	order decimals	round whole numbers	round decimals to the nearest 1, .1, .01	mult/div whole numbers by 10, 100, 1000	id fract, dec, percents from pictures	convert fractions to decimals, vice versa	convert fract/dec to percent, vice versa	id points on number lines, scales, grids	id ratios and fractional parts from data	id procedure for frac/dec estimation	add and subtract whole numbers	multiply and divide whole numbers	add and subtract decimals	id corr place of dec point in mult/div	add/sub fractions and mixed numbers	multiply fractions and mixed numbers	determine the percent of a number	est sum/diff of whole numbers and dec	est prod/quot of whole numbers and dec	est frac parts/% of whole numbers	add/sub/mult/div with calculator	interpret graphs, tables and charts	solve 1-, 2-step probs-whole #'s and dec	solve 1-, 2-step problems-fractions	solve problems involving measurement	solve problems involving elem probability	estimate a reasonable answer	solve extraneous information problems	id needed info in problem situations	solve process problems-data organization	identify figures using geometric terms	measure/determine perimeters/areas	est length/area/volume/angle measure	pick approp metric/cust measures & units	conversion within measurement systems	Average Number of Objectives Mastered	Percent of Students Needing Further Diagnosis
EAST HADDAM	72	5	4	81	84	97	77	81	71	90	90	99	79	79	96	99	93	92	83	69	78	89	76	65	100	96	89	80	49	66	93	79	76	61	59	33	71	83	59	28.6	3
EAST HAMPTON	137	5	3	82	80	94	77	71	68	84	86	100	77	76	95	97	89	73	62	60	52	83	70	58	99	88	90	68	47	64	79	81	88	58	62	49	72	91	52	27.2	6
EAST HARTFORD	360	2	6	69	78	94	74	70	72	82	80	97	84	84	98	97	90	76	58	60	64	80	67	59	99	84	82	68	39	69	83	65	83	52	60	37	74	78	48	26.6	7
EAST HAVEN	173	2	5	71	75	94	73	72	61	72	65	96	71	74	96	97	88	74	54	46	55	82	53	54	99	88	82	57	35	74	81	70	76	61	65	25	71	72	51	25.3	8
EAST LYME	157	4	2	83	79	94	86	80	75	87	87	97	89	82	95	93	89	70	62	50	64	86	66	68	99	91	94	66	51	73	85	81	83	59	61	55	75	82	60	28.0	6
EASTON	64	4	1	91	88	95	83	91	78	91	86	95	91	88	94	94	92	84	75	61	69	91	77	73	98	89	91	78	56	86	84	81	89	73	77	63	78	91	72	29.9	6
EAST WINDSOR	71	4	5	77	70	94	76	85	63	82	79	97	85	85	100	100	85	77	66	56	52	94	75	66	100	90	82	63	51	68	90	73	85	46	59	34	69	87	49	27.1	4
ELLINGTON	145	4	3	88	80	95	81	83	70	89	80	98	81	83	94	99	86	79	66	48	49	86	74	64	99	85	91	70	47	78	87	74	78	66	72	39	78	87	46	27.7	1
ENFIELD	444	3	5	77	78	96	76	78	71	74	79	95	83	83	96	98	87	71	61	48	59	87	70	64	100	90	82	64	41	76	84	73	80	57	71	48	74	86	57	27.2	8
FAIRFIELD	432	2	2	85	83	96	83	85	73	81	79	98	84	86	95	97	89	79	61	55	59	90	76	74	99	89	91	69	52	77	89	84	88	68	74	48	78	83	50	28.4	6
FARMINGTON	201	4	2	90	89	99	88	83	82	92	93	100	91	88	98	99	95	91	82	80	74	93	83	78	100	95	96	84	64	80	92	89	89	72	73	74	83	89	74	31.2	2
FRANKLIN	25	5	3	68	76	92	64	76	72	80	68	100	72	88	96	84	88	56	60	52	40	88	28	68	100	88	88	48	48	80	80	84	92	60	64	28	76	80	32	25.6	4
GLASTONBURY	323	4	2	85	84	98	83	86	78	84	88	97	87	89	96	94	90	81	66	63	71	89	79	76	100	93	92	76	66	76	88	87	89	71	79	66	74	87	69	29.8	5
GRANBY	110	4	2	89	81	94	85	82	75	89	86	97	95	84	96	96	91	88	69	65	61	87	74	70	99	87	92	67	53	83	90	79	82	61	76	57	77	91	58	29.1	4
GREENWICH	429	2	2	84	79	97	81	86	74	85	86	96	86	81	98	98	93	79	70	70	61	88	72	68	99	89	90	75	51	72	85	81	88	61	71	53	76	84	53	28.6	5
GRISWOLD	117	4	6	70	84	96	90	82	72	84	75	94	80	82	95	95	91	81	50	22	32	80	63	49	100	86	84	56	35	56	79	73	71	57	62	20	77	74	40	25.6	7
GROTON	428	3	4	69	72	93	74	73	60	81	71	96	78	75	95	94	90	75	58	53	43	82	61	51	98	82	80	57	39	64	77	61	71	50	54	30	70	80	44	25.1	13
GUILFORD	243	4	2	88	83	97	89	81	75	85	84	98	86	87	98	98	89	84	70	56	56	89	81	80	100	91	92	72	47	76	90	83	84	65	72	55	78	76	46	28.8	2
HAMDEN	343	2	4	76	73	94	70	74	59	74	73	96	76	78	94	93	82	71	55	43	55	79	57	61	96	85	78	57	37	65	80	70	77	52	72	44	67	78	51	25.5	15
HARTFORD	1346	1	7	42	52	81	52	53	34	60	57	82	59	51	93	93	76	57	30	26	35	55	41	34	95	60	57	33	18	42	66	39	47	30	39	18	46	58	29	18.6	37
HARTLAND	20	6	3	85	50	85	80	90	80	95	85	100	90	95	95	100	80	85	60	55	50	85	70	70	100	90	95	70	60	85	90	75	100	50	80	25	85	85	70	28.5	10
KENT	35	6	4	71	80	94	71	77	51	77	83	100	77	77	100	94	77	63	26	26	57	94	69	63	100	94	94	49	37	71	89	80	77	63	80	34	83	91	46	26.2	3
KILLINGLY	199	6	6	72	70	94	76	75	62	85	83	96	79	77	95	95	85	82	52	45	44	76	62	51	98	86	86	58	36	63	74	69	75	55	68	36	72	80	51	25.7	8
LEBANON	69	6	4	88	72	91	62	67	75	80	87	99	75	81	96	96	86	70	54	51	64	87	65	67	97	86	96	62	51	77	83	84	78	55	61	41	78	86	58	27.0	4
LEDYARD	214	4	2	80	84	95	82	83	71	83	76	99	84	82	93	94	90	76	68	56	62	87	65	64	100	89	89	65	54	74	85	79	85	52	71	56	75	86	62	27.9	7
LISBON	49	4	5	76	57	94	61	65	63	78	71	94	84	73	98	98	98	63	65	63	35	84	55	47	98	86	88	55	35	61	76	71	73	57	59	27	73	78	35	24.9	14
LITCHFIELD	75	6	3	77	81	93	73	87	68	85	83	96	79	85	99	100	97	83	79	61	72	92	77	69	99	92	95	77	53	71	93	80	87	68	84	47	83	73	55	28.9	5
MADISON	197	5	2	89	84	99	91	87	85	91	95	98	92	90	96	99	88	83	69	55	71	91	86	78	99	97	98	83	61	86	88	92	89	70	93	74	89	84	65	30.9	2

STATE BY DISTRICT REPORT

MATHEMATICS GRADE 8

TEST DATE: 10/90

DISTRICT	# OF STUDENTS TESTED	TOC	ERG	OBJECTIVES TESTED: CONCEPTUAL UNDERSTANDINGS											COMPUTATIONAL SKILLS										PROBLEM SOLVING AND APPLICATIONS										MEASUREMENT AND GEOMETRY					TOTAL MATH	
				order fractions	order decimals	round whole numbers	round decimals to the nearest 1, .1, .01	mult/div whole numbers by 10, 100, 1000	id fract, dec, percents from pictures	convert fractions to decimals, vice versa	convert fract/dec to percent, vice versa	id points on number lines, scales, grids	id ratios and fractional parts from data	id procedure for frac/dec estimation	add and subtract whole numbers	multiply and divide whole numbers	add and subtract decimals	id corr place of dec point in mult/div	add/sub fractions and mixed numbers	multiply fractions and mixed numbers	determine the percent of a number	est sum/diff of whole numbers and dec	est prod/quot of whole numbers and dec	est frac parts/% of whole numbers	add/sub/mult/div with calculator	interpret graphs, tables and charts	solve 1-, 2-step probs-whole #'s and dec	solve 1-, 2-step problems-fractions	solve problems involving measurement	solve problems involving elem probability	estimate a reasonable answer	solve extraneous information problems	id needed info in problem situations	solve process problems-data organization	identify figures using geometric terms	measure/determine perimeters/areas	est length/area/volume/angle measure	pick approp metric/cust measures & units	conversion within measurement systems	Average Number of Objectives Mastered	Percent of Students Needing Further Diagnosis
				SCORES INDICATE THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE																																				
MANCHESTER	443	3	4	84	74	95	71	76	70	79	78	98	81	76	97	95	85	65	51	46	48	84	57	60	99	86	84	65	39	71	81	77	76	60	64	38	74	76	47	26.1	10
MANSFIELD	111	6	4	84	91	99	78	85	83	87	88	98	86	93	97	95	91	70	76	68	83	94	85	84	100	95	92	81	59	93	90	86	91	70	70	61	87	83	66	30.4	5
MERIDEN	598	3	6	60	65	90	68	67	53	67	65	92	71	69	94	94	80	63	48	38	39	70	56	46	97	78	78	50	32	54	73	58	67	45	57	30	59	72	39	22.8	20
MIDDLETOWN	295	3	6	69	72	89	65	70	54	74	69	95	69	73	95	96	90	71	40	40	45	82	53	46	99	86	78	48	31	60	79	64	74	48	49	31	64	83	39	23.9	16
MILFORD	434	3	4	75	72	93	77	77	61	75	77	98	82	80	97	98	89	79	65	59	53	82	65	60	98	88	85	58	43	71	85	77	82	58	63	32	69	81	48	26.5	6
MONROE	244	4	2	80	84	97	85	76	71	84	77	98	80	84	98	97	91	88	72	61	69	88	74	72	100	89	91	71	46	69	89	82	84	65	73	47	75	81	52	28.4	5
MONTVILLE	215	4	5	71	74	94	79	78	58	83	75	96	77	77	93	97	86	77	62	60	59	80	60	55	98	85	84	64	27	59	74	69	71	58	43	33	64	73	37	25.3	12
NAUGATUCK	297	2	6	79	82	92	71	74	67	79	78	98	75	69	95	95	89	74	65	59	68	72	63	67	98	79	78	62	35	66	77	69	70	49	64	34	70	75	46	26.0	9
NEW BRITAIN	406	3	6	50	59	87	60	55	41	56	53	89	68	54	87	87	72	57	28	19	30	60	44	34	96	67	61	36	18	42	64	45	52	34	34	13	50	61	31	18.9	33
NEW CANAAN	191	2	1	91	82	95	82	88	81	84	85	99	86	91	97	99	95	78	74	74	70	93	75	74	99	94	97	81	51	81	87	87	89	75	75	55	86	88	55	30.0	2
NEW FAIRFIELD	162	4	2	89	78	95	78	85	76	88	81	98	83	83	98	98	92	78	73	57	67	91	71	71	99	95	94	73	54	67	87	84	80	67	75	54	80	87	59	28.8	3
NEW HAVEN	1010	1	7	51	52	81	48	60	39	58	55	87	57	52	94	89	81	51	28	22	25	63	35	29	95	67	57	31	17	41	61	40	52	27	35	18	47	57	27	18.4	37
NEWINGTON	241	2	3	82	76	97	76	80	69	79	82	96	84	85	98	98	90	72	66	61	59	91	74	67	100	89	89	66	43	72	80	76	79	61	73	33	73	83	51	27.5	4
NEW LONDON	207	3	6	57	67	87	64	57	43	68	65	96	62	56	97	94	91	67	46	37	53	71	45	42	100	77	77	50	24	41	67	60	60	44	43	32	57	68	38	22.1	19
NEW MILFORD	308	5	4	76	65	94	75	82	63	78	73	95	82	75	97	97	89	80	65	58	51	84	67	56	98	90	87	62	44	64	82	74	78	54	58	43	72	81	53	26.4	11
NEWTOWN	224	5	2	85	81	97	86	79	76	88	88	97	83	85	96	97	92	79	66	61	71	91	71	74	98	91	91	77	55	81	85	86	89	66	75	51	80	88	58	29.1	8
NORTH BRANFORD	157	4	3	71	71	94	70	68	54	78	66	97	83	80	91	94	78	55	43	43	41	80	58	53	99	82	78	53	44	65	76	64	69	46	65	33	67	85	55	24.5	11
NORTH CANAAN	28	6	4	50	57	86	68	71	61	57	75	93	75	64	96	96	75	64	54	43	39	79	39	43	100	93	71	54	29	68	68	61	79	46	82	25	50	68	57	23.4	4
NORTH HAVEN	193	2	3	83	80	92	75	83	69	77	82	98	84	85	97	97	93	76	72	65	66	87	65	66	98	88	82	70	45	73	84	74	83	58	45	36	75	67	46	27.2	7
NORTH STONINGTON	71	5	3	85	63	94	73	75	72	92	82	99	82	80	99	97	97	85	63	72	73	90	65	76	100	90	90	69	54	65	89	87	80	58	61	35	73	89	42	27.9	3
NORWALK	633	3	6	67	64	92	70	71	58	71	66	94	74	72	95	94	84	67	49	43	41	74	54	49	98	75	76	52	34	61	73	62	66	44	64	28	67	74	44	23.8	19
NORWICH	381	3	6	66	65	91	69	66	54	70	68	93	66	70	95	92	84	63	43	33	35	80	56	46	99	82	80	47	35	56	80	66	71	49	55	25	64	73	45	23.4	18
OLD SAYBROOK	92	5	4	88	84	97	89	85	85	91	73	97	88	90	96	100	89	66	61	51	59	96	67	77	100	93	92	66	53	74	87	90	87	65	62	50	78	86	52	28.7	0
OXFORD	113	5	3	73	88	95	83	92	71	86	86	97	84	86	98	99	96	89	73	66	72	89	79	73	99	86	88	74	49	66	88	76	86	69	73	26	77	78	60	28.9	5
PLAINFIELD	206	6	6	81	74	96	76	69	64	70	64	94	75	77	95	93	81	66	56	38	41	83	56	56	99	81	85	51	27	69	83	69	74	48	44	28	64	76	42	24.4	15
PLAINVILLE	152	4	5	72	83	97	87	79	72	85	89	99	77	77	97	100	94	84	64	59	64	88	72	65	100	89	89	68	53	70	83	80	86	57	59	49	74	89	46	28.0	4
PLYMOUTH	143	2	5	71	83	97	75	80	67	82	77	97	78	80	94	99	87	59	58	49	51	85	60	57	97	81	87	53	40	67	80	66	77	52	47	31	71	85	47	25.6	11
POMFRET	43	6	4	84	67	93	93	84	63	93	79	93	84	88	98	98	93	81	49	47	51	86	53	70	98	88	91	58	56	63	79	79	86	49	79	49	72	77	53	27.2	7

STATE BY DISTRICT REPORT

MATHEMATICS GRADE 8

TEST DATE: 10/90

OBJECTIVES TESTED

SCORES INDICATE THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE

CONCEPTUAL UNDERSTANDINGS

DISTRICT	# OF STUDENTS TESTED	TOC	ERG	order fractions	order decimals	round whole numbers	round decimals to the nearest 1, .1, .01	mult/div whole numbers by 10, 100, 1000	id fract, dec, percents from pictures	convert fractions to decimals, vice versa	convert fract/dec to percent, vice versa	id points on number lines, scales, grids	id ratios and fractional parts from data	id procedure for frac/dec estimation
PORTLAND	86	5	4	87	80	97	87	80	77	80	84	98	85	81
PRESTON	58	4	5	88	83	98	84	93	74	91	86	97	84	86
PUTNAM	114	6	6	68	83	93	75	75	70	81	78	96	87	73
REDDING	95	5	1	86	77	96	82	83	73	83	83	97	84	91
RIDGEFIELD	222	5	1	93	90	98	85	92	85	94	95	98	96	94
ROCKY HILL	144	4	4	84	87	96	85	87	81	89	90	97	88	88
SALEM	38	5	4	71	74	97	74	71	55	74	71	97	79	82
SALISBURY	25	6	4	80	80	100	88	80	64	76	92	92	88	84
SEYMOUR	133	5	5	68	73	97	79	77	62	74	72	94	86	80
SHARON	23	6	4	78	65	87	74	74	43	100	87	100	74	83
SHELTON	350	3	3	76	69	95	77	77	62	76	73	97	81	77
SHERMAN	16	6	2	94	75	100	94	94	63	100	94	100	88	88
SIMSBURY	289	4	1	86	84	97	90	89	82	88	88	98	89	91
SOMERS	95	4	3	83	81	95	80	77	76	89	77	99	80	76
SOUTHINGTON	446	3	5	78	77	96	83	82	72	84	78	98	81	83
SOUTH WINDSOR	286	2	2	86	73	93	81	81	72	83	77	97	81	80
SPRAGUE	31	4	5	61	68	90	94	68	52	77	81	94	84	71
STAFFORD	101	5	5	80	88	100	91	89	83	97	91	100	86	87
STAMFORD	754	1	6	59	66	86	61	64	54	68	67	92	78	64
STERLING	42	6	5	81	71	100	45	67	57	57	64	95	76	79
STONINGTON	133	4	5	86	75	98	74	79	77	82	80	95	77	80
STRATFORD	427	2	5	85	76	96	80	79	74	85	83	97	83	85
SUFFIELD	104	4	3	82	83	97	86	82	65	85	91	97	75	89
THOMASTON	77	4	5	61	62	86	77	69	52	66	62	88	73	69
THOMPSON	96	6	6	66	61	96	63	72	60	73	78	97	66	78
TOLLAND	150	5	3	88	82	93	77	82	77	87	84	99	89	87
TORRINGTON	262	3	6	75	80	96	85	79	65	82	74	95	83	78
TRUMBULL	344	2	2	79	78	94	83	81	70	79	81	98	87	83

COMPUTATIONAL SKILLS

DISTRICT	add and subtract whole numbers	multiply and divide whole numbers	add and subtract decimals	id corr place of dec point in mult/div	add/sub fractions and mixed numbers	multiply fractions and mixed numbers	determine the percent of a number	est sum/diff of whole numbers and dec	est prod/quot of whole numbers and dec	est frac parts/% of whole numbers
PORTLAND	97	98	94	84	74	60	72	91	76	83
PRESTON	97	98	97	83	79	50	69	90	67	74
PUTNAM	98	98	88	77	58	61	60	85	66	63
REDDING	94	94	91	84	67	57	75	94	76	74
RIDGEFIELD	98	98	97	90	86	90	86	94	85	86
ROCKY HILL	97	98	94	93	83	77	74	92	80	75
SALEM	89	82	84	58	32	34	42	87	74	55
SALISBURY	100	96	92	83	75	79	63	83	58	67
SEYMOUR	98	100	87	84	62	56	45	83	57	49
SHARON	100	96	96	65	48	65	57	91	57	52
SHELTON	96	96	87	74	63	64	55	85	61	63
SHERMAN	100	100	100	81	75	63	44	94	75	56
SIMSBURY	98	98	94	83	74	69	77	94	81	77
SOMERS	100	97	87	63	52	56	67	86	71	65
SOUTHINGTON	96	97	87	80	60	48	52	89	73	65
SOUTH WINDSOR	97	95	93	79	61	58	56	88	68	62
SPRAGUE	94	97	84	77	45	35	29	77	58	45
STAFFORD	99	100	95	87	76	67	72	91	81	75
STAMFORD	96	94	80	64	44	44	47	71	48	46
STERLING	90	90	55	55	38	17	40	79	55	55
STONINGTON	95	98	82	73	54	51	53	86	72	62
STRATFORD	96	98	89	76	56	42	55	89	64	63
SUFFIELD	97	94	84	75	53	36	62	89	78	73
THOMASTON	97	95	91	84	56	49	35	74	66	51
THOMPSON	95	98	86	68	39	25	45	82	55	60
TOLLAND	95	98	95	75	67	71	63	86	67	63
TORRINGTON	97	98	91	83	67	56	52	88	73	62
TRUMBULL	98	97	91	80	65	59	67	88	75	68

PROBLEM SOLVING AND APPLICATIONS

DISTRICT	add/sub/mult/div with calculator	interpret graphs, tables and charts	solve 1-, 2-step probs-whole #s and dec	solve 1-, 2-step problems-fractions	solve problems involving measurement	estimate a reasonable answer	solve problems involving elem probability	solve extraneous information problems	id needed info in problem situations	solve process problems-data organization
PORTLAND	99	91	93	80	51	78	91	84	79	65
PRESTON	100	91	97	83	57	78	88	84	97	64
PUTNAM	98	82	85	60	38	73	67	72	81	53
REDDING	100	95	89	76	51	74	87	92	92	61
RIDGEFIELD	100	95	96	86	72	80	90	92	91	73
ROCKY HILL	100	85	95	80	49	73	92	85	88	76
SALEM	97	82	84	42	45	68	74	82	79	66
SALISBURY	100	100	88	67	33	63	92	92	79	58
SEYMOUR	100	87	87	62	45	56	86	74	81	58
SHARON	100	96	91	65	35	48	74	70	87	43
SHELTON	99	88	86	61	42	65	81	79	81	52
SHERMAN	100	94	94	63	38	69	94	75	88	69
SIMSBURY	99	92	95	79	70	85	90	93	87	70
SOMERS	98	84	85	65	51	79	86	87	92	59
SOUTHINGTON	99	91	90	67	62	69	88	81	80	64
SOUTH WINDSOR	99	87	90	65	47	69	81	84	85	59
SPRAGUE	100	84	84	58	35	45	71	65	71	52
STAFFORD	99	95	96	82	53	84	90	83	84	71
STAMFORD	98	77	76	49	31	57	74	60	66	46
STERLING	98	93	81	48	26	74	76	67	79	38
STONINGTON	99	87	89	59	43	68	81	77	80	53
STRATFORD	99	87	83	62	38	68	84	73	79	51
SUFFIELD	100	87	86	59	52	73	87	76	83	63
THOMASTON	99	82	77	45	22	62	74	61	73	47
THOMPSON	99	84	76	49	32	71	85	69	77	50
TOLLAND	99	89	96	68	49	73	84	77	91	67
TORRINGTON	100	90	89	63	43	71	82	75	82	60
TRUMBULL	99	90	92	67	44	69	84	79	78	63

MEASUREMENT AND GEOMETRY / TOTAL MATH

DISTRICT	identify figures using geometric terms	measure/determine perimeters/areas	est length/area/volume/angle measure	pick approp metric/cust measures & units	conversion within measurement systems	Average Number of Objectives Mastered	Percent of Students Needing Further Diagnosis
PORTLAND	86	48	80	86	52	29.3	2
PRESTON	57	36	81	78	62	29.2	3
PUTNAM	58	41	67	85	39	26.4	7
REDDING	65	62	74	97	51	29.0	2
RIDGEFIELD	81	82	82	93	85	32.3	0
ROCKY HILL	78	65	80	90	61	30.3	3
SALEM	58	32	74	84	50	25.0	18
SALISBURY	75	42	79	96	50	28.6	0
SEYMOUR	52	19	56	73	50	25.7	6
SHARON	43	57	70	87	61	26.2	4
SHELTON	75	39	72	79	54	26.6	9
SHERMAN	50	44	94	100	50	28.9	0
SIMSBURY	82	63	83	87	73	30.7	2
SOMERS	73	36	80	89	47	27.7	1
SOUTHINGTON	68	35	76	85	55	27.6	5
SOUTH WINDSOR	60	28	71	66	52	27.1	7
SPRAGUE	45	19	58	81	45	23.9	10
STAFFORD	84	50	83	84	64	30.4	1
STAMFORD	44	27	60	69	39	22.7	22
STERLING	48	12	67	79	38	22.9	21
STONINGTON	59	45	71	90	51	26.8	10
STRATFORD	60	39	75	82	49	26.8	6
SUFFIELD	69	44	76	83	55	27.6	5
THOMASTON	70	31	62	78	36	23.8	14
THOMPSON	57	35	59	74	43	24.2	15
TOLLAND	79	45	79	81	59	28.6	3
TORRINGTON	51	37	67	84	52	27.0	10
TRUMBULL	76	48	74	83	48	27.9	6

STATE BY DISTRICT REPORT

MATHEMATICS
GRADE 8

TEST DATE: 10/90

OBJECTIVES TESTED

SCORES INDICATE THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE

DISTRICT	# OF STUDENTS TESTED	TOC	ERG	CONCEPTUAL UNDERSTANDINGS											COMPUTATIONAL SKILLS										PROBLEM SOLVING AND APPLICATIONS										MEASUREMENT AND GEOMETRY					TOTAL MATH	
				order fractions	order decimals	round whole numbers	round decimals to the nearest 1, .1, .01	mult/div whole numbers by 10, 100, 1000	id fract, dec, percents from pictures	convert fractions to decimals, vice versa	convert fract/dec to percent, vice versa	id points on number lines, scales, grids	id ratios a:b fractional parts from data	id procedure for frac/dec estimation	add and subtract whole numbers	multiply and divide whole numbers	add and subtract decimals	id corr place of dec point in mult/div	add/sub fractions and mixed numbers	multiply fractions and mixed numbers	determine the percent of a number	est sum/diff of whole numbers and dec	est prod/quot of whole numbers and dec	est frac parts/% of whole numbers	add/sub/mult/div with calculator	interpret graphs, tables and charts	solve 1-, 2-step probs-whole #s and dec	solve 1-, 2-step problems-fractions	solve problems involving measurement	estimate a reasonable answer	solve problems involving elem probability	solve extraneous information problems	id needed info in problem situations	solve process problems-data organization	identify figures using geometric terms	measure/determine perimeters/areas	est length/area/volume/angle measure	pick approp metric/cust measures & units	conversion within measurement systems	Average Number of Objectives Mastered	Percent of Students Needing Further Diagnosis
UNION	7	6	5	86	86	86	86	86	100	100	86	100	86	100	100	100	100	100	100	86	86	100	100	86	100	100	100	100	86	100	86	100	71	43	71	57	71	100	100	32.4	0
VERNON	285	3	4	83	71	94	75	81	70	78	73	96	79	80	96	98	88	81	57	46	53	87	66	61	99	90	93	65	49	70	85	84	81	58	72	48	71	81	58	27.3	6
VOLUNTOWN	26	6	5	65	69	92	73	69	65	81	85	96	85	85	96	100	96	77	65	73	54	85	54	65	100	85	96	73	46	58	85	85	92	54	77	54	77	85	46	27.4	8
WALLINGFORD	409	3	5	76	65	95	79	79	61	77	75	97	83	84	97	97	81	75	57	49	51	82	64	61	99	90	83	64	43	63	83	78	79	57	52	36	67	80	45	26.1	8
WATERBURY	911	1	6	51	51	80	58	53	36	53	52	85	60	55	92	92	80	61	32	23	29	62	33	32	96	70	63	34	20	39	66	46	59	37	39	16	47	58	26	18.9	33
WATERFORD	162	4	4	79	72	88	84	80	67	81	73	98	85	80	96	94	90	86	59	41	54	84	68	63	98	86	89	64	37	72	82	83	83	60	68	46	75	84	50	27.0	7
WATERTOWN	224	2	5	89	88	96	86	83	75	88	84	96	88	88	98	99	96	90	66	66	55	92	67	69	100	94	92	68	42	78	83	81	87	59	61	38	81	79	58	28.6	2
WESTBROOK	46	6	4	87	80	100	89	98	85	87	93	100	93	93	100	98	96	84	69	40	73	91	78	80	100	96	91	82	71	91	91	89	96	73	91	76	89	93	76	31.2	2
WEST HARTFORD	496	2	2	84	83	95	83	81	77	86	86	97	82	87	97	97	89	73	67	54	71	87	76	72	99	90	91	73	55	80	86	82	84	64	72	54	79	83	60	28.8	7
WEST HAVEN	450	2	6	72	75	94	77	79	69	89	80	97	78	78	99	98	96	81	67	56	50	88	60	63	99	89	89	71	38	69	85	75	79	55	57	44	70	77	51	27.0	6
WESTON	113	5	1	89	87	94	83	93	85	89	89	100	96	90	96	97	93	85	76	77	78	92	83	75	100	94	97	79	58	88	93	88	90	62	87	69	82	94	55	30.8	1
WESTPORT	195	3	1	94	82	96	74	86	86	92	93	99	91	92	97	97	90	74	72	61	69	94	81	79	98	95	94	78	52	92	90	90	89	72	82	69	84	88	52	30.2	2
WETHERSFIELD	186	2	3	85	85	97	82	83	77	85	93	99	89	87	98	98	91	83	60	49	69	91	76	73	99	92	97	68	57	84	85	85	85	70	79	58	78	90	68	29.5	2
WILLINGTON	42	5	4	90	85	90	73	80	73	78	85	95	73	73	90	86	95	57	57	50	45	88	55	60	93	95	83	71	48	81	86	67	81	52	69	71	76	88	60	27.1	10
WILTON	191	4	1	92	89	96	91	88	90	96	87	100	90	93	99	99	90	76	78	87	81	94	84	82	100	93	96	85	59	89	88	95	89	72	83	74	89	87	71	31.5	2
WINCHESTER	124	6	5	65	73	96	73	65	56	73	65	97	70	81	95	94	84	67	44	37	43	87	62	55	98	89	85	59	31	62	82	76	87	58	49	27	76	82	33	24.7	10
WINDHAM	199	6	6	65	67	92	59	62	48	62	67	92	67	70	95	90	80	41	34	15	33	77	47	43	98	82	75	44	31	53	78	65	68	47	46	37	66	71	45	22.1	23
WINDSOR	338	2	4	75	74	93	80	77	72	78	81	95	81	78	97	97	88	77	59	51	62	82	62	66	99	85	89	64	51	79	83	75	80	56	73	49	73	81	62	27.2	8
WINDSOR LOCKS	102	4	5	76	80	95	85	87	72	90	85	100	87	89	99	96	96	77	76	57	71	86	76	75	100	90	96	81	49	95	85	81	85	66	73	50	80	83	58	29.3	3
WOLCOTT	156	2	5	78	77	94	78	79	70	85	76	98	81	88	97	99	93	85	72	69	54	92	64	62	99	81	81	70	36	74	87	74	78	50	59	45	75	80	38	27.1	5
WOODSTOCK	71	6	3	75	63	92	69	83	66	87	62	93	72	77	94	94	86	59	42	28	52	89	54	56	100	89	90	46	51	61	83	87	75	56	44	35	65	80	55	25.1	7
REG. DIST. NO. 04	129	6	4	84	80	92	80	83	68	83	75	95	79	85	96	97	91	74	71	72	70	83	70	71	100	89	88	67	43	65	82	84	84	57	70	54	74	84	56	28.0	7
REG. DIST. NO. 05	306	4	2	88	83	98	82	87	79	85	84	98	89	89	97	97	95	82	69	63	69	92	78	79	100	92	95	77	64	75	89	87	87	70	71	58	81	89	60	29.7	3
REG. DIST. NO. 06	46	6	4	83	74	100	83	85	70	98	91	98	83	93	98	100	87	96	65	61	63	89	78	61	100	96	91	67	41	76	85	72	89	65	89	37	61	76	43	28.4	0
REG. DIST. NO. 07	132	6	3	89	78	95	80	86	77	85	86	98	91	90	95	98	92	91	63	55	70	95	73	81	100	93	93	76	60	78	91	90	90	65	81	50	87	94	73	29.9	4
REG. DIST. NO. 08	206	5	2	79	77	91	74	71	63	77	74	95	76	75	97	94	89	64	34	23	47	82	55	55	99	85	83	52	50	63	75	70	77	57	61	43	71	84	61	25.2	11
REG. DIST. NO. 10	169	5	3	86	80	96	88	78	71	93	84	99	88	92	98	98	91	83	57	51	63	93	73	72	100	89	94	68	47	72	91	85	88	60	62	44	80	76	46	28.3	2
REG. DIST. NO. 11	48	6	4	73	81	98	77	79	79	71	77	96	73	83	98	96	94	65	46	31	52	85	71	58	96	88	85	63	46	71	85	88	92	58	56	40	75	90	56	26.7	10

STATE BY DISTRICT REPORT

MATHEMATICS GRADE 8

TEST DATE: 10/90

OBJECTIVES TESTED

SCORES INDICATE THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE

DISTRICT	# OF STUDENTS TESTED	TOC	ERG	CONCEPTUAL UNDERSTANDINGS											COMPUTATIONAL SKILLS										PROBLEM SOLVING AND APPLICATIONS										MEASUREMENT AND GEOMETRY					TOTAL MATH	
				order fractions	order decimals	round whole numbers	round decimals to the nearest 1, .1, .01	mult/div whole numbers by 10, 100, 1000	id fract, dec, percents from pictures	convert fractions to decimals, vice versa	convert fract/dec to percent, vice versa	id points on number lines, scales, grids	id ratios and fractional parts from data	id procedure for frac/dec estimation	add and subtract whole numbers	multiply and divide whole numbers	add and subtract decimals	id corr place of dec point in mult/div	add/sub fractions and mixed numbers	multiply fractions and mixed numbers	determine the percent of a number	est sum/diff of whole numbers and dec	est prod/quot of whole numbers and dec	est frac parts/% of whole numbers	add/sub/mult/div with calculator	interpret graphs, tables and charts	solve 1-, 2-step probs-whole #'s and dec	solve 1-, 2-step problems-fractions	solve problems involving measurement	estimate a reasonable answer	solve problems involving elem probability	solve extraneous information problems	id needed info in problem situations	solve process problems-data organization	identify figures using geometric terms	measure/determine perimeters/areas	est length/area/volume/angle measure	pick approp metric/cust measures & units	conversion within measurement systems	Average Number of Objectives Mastered	Percent of Students Needing Further Diagnosis
REG. DIST. NO. 12	63	6	2	84	67	95	68	75	68	84	76	98	78	84	92	97	84	67	41	35	44	86	59	60	98	79	83	54	49	62	79	76	81	54	59	30	63	86	65	25.6	10
REG. DIST. NO. 13	99	5	3	82	78	93	78	75	71	81	70	95	79	79	90	99	89	76	44	33	44	88	75	58	98	92	89	49	30	60	87	75	85	60	63	21	71	63	52	25.7	8
REG. DIST. NO. 14	89	4	2	78	78	96	85	80	66	96	90	97	88	83	96	97	91	81	69	40	62	88	72	70	99	85	90	64	49	74	87	79	83	51	63	38	80	83	51	27.7	2
REG. DIST. NO. 15	227	4	3	82	85	98	78	86	70	88	84	97	82	83	99	99	94	88	77	74	57	90	77	68	99	90	93	73	53	71	83	80	77	67	63	56	71	86	49	28.7	4
REG. DIST. NO. 16	148	4	5	71	64	93	70	71	57	68	68	94	80	79	93	97	76	58	45	27	44	78	61	55	99	88	83	48	33	65	81	76	82	54	61	30	69	63	29	24.1	12
REG. DIST. NO. 17	160	6	3	82	78	96	76	81	63	75	71	98	84	83	93	93	88	58	49	32	47	86	58	59	98	87	86	51	40	63	81	73	74	49	74	50	79	86	53	25.9	11
REG. DIST. NO. 18	109	6	2	81	80	91	75	73	68	70	76	96	82	84	94	94	85	67	56	40	60	91	66	67	97	89	89	69	44	73	86	81	89	63	57	36	66	76	43	26.5	10

STATE BY DISTRICT REPORT

MATHEMATICS GRADE 8

TEST DATE: 10/90

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OBJECTIVES TESTED

SCORES INDICATE THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE

DISTRICT	# OF STUDENTS TESTED	TOC	ERG	CONCEPTUAL UNDERSTANDINGS											COMPUTATIONAL SKILLS										PROBLEM SOLVING AND APPLICATIONS										MEASUREMENT AND GEOMETRY					TOTAL MATH	
				order fractions	order decimals	round whole numbers	round decimals to the nearest 1, .1, .01	mult/div whole numbers by 10, 100, 1000	id fract. dec. percents from pictures	convert fractions to decimals, vice versa	convert fract/dec to percent, vice versa	id points on number lines, scales, grids	id ratios and fractional parts from data	id procedure for frac/dec estimation	add and subtract whole numbers	multiply and divide whole numbers	add and subtract decimals	id corr place of dec point in mult/div	add/sub fractions and mixed numbers	multiply fractions and mixed numbers	determine the percent of a number	est sum/diff of whole numbers and dec	est prod/quot of whole numbers and dec	est frac parts/% of whole numbers	add/sub/mult/div with calculator	interpret graphs, tables and charts	solve 1-, 2-step probs-whole #s and dec	solve 1-, 2-step problems-fractions	solve problems involving measurement	solve problems involving elem probability	estimate a reasonable answer	solve extraneous information problems	id needed info in problem situations	solve process problems-data organization	identify figures using geometric terms	measure/determine perimeters/areas	est length/area/volume/angle measure	pick approp metric/cust measures & units	conversion within measurement systems	Average Number of Objectives Mastered	Percent of Students Needing Further Diagnosis
TOC 1 TOTAL	5142			49	55	83	55	57	40	60	57	86	61	55	94	92	80	58	33	28	33	61	38	34	96	67	61	36	20	44	67	44	55	34	39	19	49	61	30	19.4	33
TOC 2 TOTAL	6336			81	79	95	79	80	71	82	81	97	82	82	97	97	90	77	63	56	61	86	68	66	99	88	87	67	45	73	84	77	81	59	66	43	74	80	52	27.5	7
TOC 3 TOTAL	7287			71	70	93	73	72	60	75	72	95	76	75	95	95	85	70	53	45	48	80	60	55	98	84	82	57	38	63	79	69	74	52	60	34	67	78	46	25.0	13
TOC 4 TOTAL	6117			83	81	96	83	82	73	85	83	97	85	85	96	97	91	80	68	60	63	89	73	69	99	90	91	70	51	74	86	82	83	63	71	51	76	84	56	28.4	5
TOC 5 TOTAL	3224			81	79	95	80	81	72	85	82	97	84	83	96	97	91	79	62	57	62	88	70	66	99	90	91	68	49	71	85	81	84	62	68	47	75	83	55	28.0	5
TOC 6 TOTAL	2503			78	75	94	74	76	66	79	77	96	79	81	96	96	86	70	54	45	54	86	63	62	99	88	86	60	42	69	82	77	80	55	63	41	73	82	51	26.4	9
ERG 1 TOTAL	1685			90	85	96	85	89	83	90	89	99	91	91	97	98	93	82	76	73	75	93	80	78	100	94	95	81	62	85	89	91	89	70	81	67	83	90	68	30.8	2
ERG 2 TOTAL	5509			85	82	96	83	82	75	85	84	98	85	85	97	97	91	79	66	58	65	89	74	71	99	90	91	72	54	75	86	83	84	64	72	53	77	84	57	28.7	5
ERG 3 TOTAL	3354			82	79	95	78	80	69	83	80	98	83	84	96	97	90	76	62	56	59	88	69	66	99	89	89	65	47	70	84	79	82	60	69	42	76	82	53	27.6	5
ERG 4 TOTAL	4734			79	75	94	77	78	68	80	78	97	82	80	96	96	89	76	61	54	57	85	65	62	99	88	87	64	43	70	83	76	80	58	67	43	72	81	51	26.9	8
ERG 5 TOTAL	4088			77	75	95	78	79	67	80	77	97	81	82	96	98	87	76	59	50	54	86	66	61	99	88	86	63	41	69	83	76	80	57	60	37	72	81	48	26.6	7
ERG 6 TOTAL	7762			64	68	90	68	67	55	72	68	93	72	69	95	94	85	67	47	40	44	75	53	49	98	80	78	51	32	58	76	63	70	47	52	29	62	73	41	23.5	18
ERG 7 TOTAL	3477			46	53	82	53	57	37	60	56	85	60	53	94	92	80	56	30	25	32	58	38	32	96	64	57	33	18	42	66	40	51	31	38	17	47	60	29	18.8	35
STATE TOTAL	30609			73	73	92	74	75	63	77	75	95	78	76	96	96	87	72	56	49	53	81	62	58	98	84	82	60	40	65	80	71	75	54	61	39	69	78	48	25.7	12

APPENDIX I

Fall 1990 Grade Eight
State by District Report:
Language Arts

STATE BY DISTRICT REPORT

LANGUAGE ARTS GRADE 8

TEST DATE: 10/90

DISTRICT	# OF STUDENTS TESTED	TOC	ERG	OBJECTIVES TESTED: WRITING MECHANICS				STUDY SKILLS		LISTENING COMPREHENSION		READING COMPREHENSION			TOTAL LANGUAGE ARTS	DEGREES OF READING POWER (DRP)					WRITING SAMPLE								
				capitalization and punctuation	spelling (homonyms/abbreviations)	agreement	tone	locating information	notetaking and outlining	literal	inferential and evaluative	literal	inferential	evaluative	Average Number of Objectives Mastered	Below 55	55-61	62+	Average DRP Score	% of Students Needing Further Diagnosis	2	3	4	5	6	7	8	Average Holistic Score	% of Students Needing Further Diagnosis
MASTERY CRITERIA (NUMBER CORRECT/NUMBER POSSIBLE)				9/12	6/8	11/15	3/4	9/2	3/4	3/4	12/16	6/8	10/14	10/14															
				SCORES REPRESENT THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE																									
ANSONIA	129	5	6	66	76	98	89	91	80	62	64	86	64	65	8.4	13	21	65	65	13	0	2	11	26	28	18	15	5.9	2
ASHFORD	42	6	4	78	88	95	98	98	90	76	88	93	78	80	9.6	2	10	88	69	2	0	0	0	7	26	26	40	7.0	0
AVON	162	4	1	85	93	98	96	98	90	80	90	95	86	83	9.9	4	13	83	71	4	0	1	6	14	27	30	23	6.5	1
BERLIN	161	4	3	78	76	94	95	89	84	70	74	88	69	68	8.8	9	22	70	66	9	0	2	8	22	31	20	17	6.1	2
BETHEL	214	4	4	85	79	98	93	91	90	72	78	88	73	71	9.2	10	16	74	67	10	1	0	11	18	26	21	23	6.2	1
BLOOMFIELD	186	2	4	69	80	96	90	89	74	46	54	75	67	57	8.0	20	20	60	62	20	3	2	25	23	26	11	9	5.4	5
BOLTON	56	4	2	79	93	100	96	93	91	82	93	96	84	91	10.0	4	7	89	72	4	0	0	4	13	29	20	36	6.7	0
BOZRAH	30	5	3	70	73	97	87	90	80	67	67	83	77	67	8.6	23	13	63	62	23	3	0	20	37	10	23	7	5.5	3
BRANFORD	217	4	4	81	80	93	91	86	88	68	76	88	70	72	8.9	8	13	78	67	8	0	3	28	28	25	11	5	5.2	4
BRIDGEPORT	1126	1	7	52	75	81	75	73	60	42	33	61	40	35	6.3	43	26	31	56	43	4	13	31	28	16	6	2	4.6	17
BRISTOL	516	3	6	81	77	91	89	89	84	70	70	85	66	64	8.7	15	22	63	64	15	1	4	22	26	24	15	9	5.5	4
BROOKFIELD	192	4	2	86	83	97	95	94	92	77	86	94	79	83	9.7	5	15	81	68	5	1	3	15	20	30	20	11	5.8	4
BROOKLYN	89	6	5	76	74	93	89	90	70	75	78	83	66	60	8.5	16	27	57	63	16	2	2	33	21	18	20	3	5.2	4
CANAAN	11	6	4	73	64	100	91	91	100	91	82	100	73	82	9.5	0	45	55	64	0	0	0	45	18	18	18	0	5.1	0
CANTERBURY	70	6	3	84	74	96	96	87	77	79	81	87	71	69	9.0	11	23	66	65	11	0	0	14	23	37	17	9	5.8	0
CANTON	88	4	2	84	82	97	91	92	91	68	82	86	83	77	9.3	3	14	83	71	3	0	0	15	9	27	30	19	6.3	0
CHESHIRE	277	2	2	82	81	94	93	90	88	72	84	89	76	75	9.3	9	12	78	68	9	1	4	7	18	25	24	21	6.2	4
CLINTON	141	5	4	73	76	97	92	91	88	73	72	91	71	65	8.9	14	20	66	65	14	1	5	21	24	24	19	6	5.5	6
COLCHESTER	108	5	5	84	85	93	90	88	81	71	65	85	64	69	8.8	18	17	66	63	18	4	3	26	23	29	12	4	5.2	6
COLUMBIA	47	5	3	89	81	96	94	87	96	85	96	94	89	85	9.9	6	6	87	71	6	0	0	9	19	28	19	26	6.3	0
CORNWALL	14	6	3	100	100	100	100	100	100	100	100	93	100	93	11.0	7	0	93	79	7	0	0	0	0	0	54	46	7.5	0
COVENTRY	98	4	3	79	68	96	89	90	84	73	76	90	78	74	9.0	12	13	74	66	12	1	2	20	15	32	19	11	5.8	3
CROMWELL	106	4	4	73	71	97	95	92	80	63	70	94	72	66	8.8	11	15	73	66	11	0	0	4	2	16	35	43	7.1	0
DANBURY	559	3	6	69	67	89	84	80	77	52	53	78	56	56	7.6	30	19	52	60	30	1	4	24	24	22	16	9	5.5	5
DARIEN	163	2	1	87	81	96	93	93	86	72	79	92	83	78	9.4	15	10	75	66	15	2	5	14	22	29	18	11	5.7	7
DERBY	82	5	6	90	88	94	89	89	83	68	60	88	67	66	8.8	18	24	57	62	18	0	2	7	28	34	17	11	5.9	2
EASTFORD	17	6	3	67	80	100	100	100	100	80	87	94	69	75	9.7	18	29	53	64	18	0	13	0	47	7	13	20	5.7	13
EAST GRANBY	45	4	2	87	80	98	98	87	87	71	84	89	73	80	9.3	11	11	78	66	11	0	0	5	7	30	36	23	6.7	0

STATE BY DISTRICT REPORT

LANGUAGE ARTS GRADE 8

TEST DATE: 10/90

DISTRICT	# OF STUDENTS TESTED	TOC	ERG	OBJECTIVES TESTED: WRITING MECHANICS				STUDY SKILLS		LISTENING COMPREHENSION		READING COMPREHENSION			TOTAL LANGUAGE ARTS	DEGREES OF READING POWER (DRP)					WRITING SAMPLE								
				capitalization and punctuation	spelling (homonyms/abbreviations)	agreement	tone	locating information	notetaking and outlining	literal	inferential and evaluative	literal	inferential	evaluative	Average Number of Objectives Mastered	Below 55	55-61	62+	Average DRP Score	% of Students Needing Further Diagnosis	2	3	4	5	6	7	8	Average Holistic Score	% of Students Needing Further Diagnosis
MASTERY CRITERIA (NUMBER CORRECT/NUMBER POSSIBLE)				9/12	6/8	11/15	3/4	9/2	3/4	3/4	12/16	6/8	10/14	10/14															
				SCORES REPRESENT THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE																									
EAST HADDAM	71	5	4	90	75	97	96	91	84	67	75	86	82	83	9.3	9	10	81	68	9	0	0	13	21	37	22	7	5.9	0
EAST HAMPTON	137	5	3	83	77	89	88	88	88	68	77	89	77	69	8.9	14	14	72	65	14	1	1	18	23	34	14	9	5.7	2
EAST HARTFORD	360	2	6	71	74	94	91	86	81	55	67	87	68	64	8.5	11	22	67	65	11	0	1	23	23	28	16	9	5.6	1
EAST HAVEN	173	2	5	68	83	95	80	79	73	51	64	82	62	60	8.0	22	17	61	62	22	1	4	35	28	23	8	2	5.0	5
EAST LYME	157	4	2	78	78	95	90	92	85	66	80	88	76	71	9.0	10	13	77	68	10	2	4	12	12	18	26	25	6.2	6
EASTON	64	4	1	69	80	98	91	94	89	72	77	92	81	80	9.2	9	9	81	69	9	2	0	0	0	27	33	39	7.0	2
EAST WINDSOR	71	4	5	80	87	99	93	90	87	68	82	97	83	70	9.4	6	18	76	68	6	1	1	6	13	30	37	13	6.3	3
ELLINGTON	145	4	3	86	86	96	92	89	85	79	72	82	72	70	9.1	15	13	72	66	15	0	0	9	21	34	23	12	6.1	0
ENFIELD	442	3	5	68	75	96	93	91	85	67	76	89	71	73	8.8	14	20	67	65	14	2	2	17	22	25	22	10	5.7	4
FAIRFIELD	430	2	2	77	75	95	92	90	89	76	85	88	78	73	9.2	13	15	72	66	13	2	7	21	27	23	14	6	5.3	8
FARMINGTON	201	4	2	78	82	96	97	96	89	77	81	94	83	85	9.6	4	11	85	71	4	0	0	10	20	35	20	15	6.1	0
FRANKLIN	25	5	3	80	76	100	96	100	80	72	68	88	60	72	8.9	8	32	60	64	8	0	4	4	48	16	20	8	5.7	4
GLASTONBURY	321	4	2	83	76	96	93	89	85	71	82	91	76	76	9.2	12	13	76	67	12	1	1	13	17	29	24	16	6.1	2
GRANBY	110	4	2	88	85	97	92	95	92	74	79	93	86	76	9.6	7	9	84	69	7	0	1	8	15	30	24	23	6.4	1
GREENWICH	432	2	2	73	81	96	88	85	84	69	75	85	73	74	8.9	15	17	68	65	15	0	1	7	13	27	29	23	6.5	1
GRISWOLD	117	4	6	74	74	91	83	83	72	60	67	82	58	64	8.1	20	21	59	62	20	0	2	21	24	33	15	5	5.6	2
GROTON	428	3	4	71	74	91	91	84	82	65	69	87	65	63	8.5	21	19	60	62	21	2	4	19	24	26	18	7	5.5	6
GUILFORD	242	4	2	86	86	99	97	95	93	71	79	94	81	84	9.6	6	13	81	69	6	0	1	7	15	28	27	21	6.4	1
HAMDEN	343	2	4	67	83	94	89	90	80	65	65	87	74	65	8.6	24	13	64	63	24	2	4	18	22	23	18	13	5.6	6
HARTFORD	1354	1	7	40	64	73	64	60	48	38	31	58	33	28	5.4	57	19	23	52	57	4	11	26	28	19	9	4	4.9	15
HARTLAND	20	6	3	90	75	100	95	95	100	100	95	95	90	85	10.2	0	20	80	69	0	0	0	10	15	35	30	10	6.2	0
KENT	35	6	4	97	83	100	97	97	91	63	63	97	74	83	9.5	0	14	86	71	0	0	0	3	29	17	23	29	6.5	0
KILLINGLY	199	6	6	79	72	91	87	82	79	65	74	82	58	58	8.3	22	23	54	61	22	0	4	19	30	25	14	8	5.5	4
LEBANON	69	6	4	70	78	99	94	86	88	65	83	86	83	77	9.1	4	13	82	69	4	3	4	32	21	24	9	7	5.1	7
LEDYARD	214	4	2	83	76	95	93	92	87	78	79	87	71	73	9.1	18	15	67	65	18	1	1	9	15	23	25	26	6.3	2
LISBON	49	4	5	80	88	96	90	84	76	73	86	94	79	75	9.2	8	20	71	66	8	0	2	6	33	39	8	12	5.8	2
LITCHFIELD	75	6	3	80	77	97	99	95	92	68	83	95	77	88	9.5	5	8	87	69	5	0	0	8	15	28	31	19	6.4	0
MADISON	198	5	2	91	86	97	97	97	90	77	89	96	87	89	10.0	6	12	82	69	6	0	2	6	14	29	34	16	6.4	2

STATE BY DISTRICT REPORT

LANGUAGE ARTS GRADE 8

TEST DATE: 10/90

DISTRICT	# OF STUDENTS TESTED	TOC	ERG	OBJECTIVES TESTED: WRITING MECHANICS				STUDY SKILLS		LISTENING COMPREHENSION		READING COMPREHENSION			TOTAL LANGUAGE ARTS	DEGREES OF READING POWER (DRP)					WRITING SAMPLE								
				capitalization and punctuation	spelling (homonyms/abbreviations)	agreement	tone	locating information	notetaking and outlining	literal	inferential and evaluative	literal	inferential	evaluative	Average Number of Objectives Mastered	Below 55	55-61	62+	Average DRP Score	% of Students Needing Further Diagnosis	2	3	4	5	6	7	8	Average Holistic Score	% of Students Needing Further Diagnosis
MASTERY CRITERIA (NUMBER CORRECT/NUMBER POSSIBLE)				9/12	6/8	11/15	3/4	9/2	3/4	3/4	12/16	6/8	10/14	10/14															
				SCORES REPRESENT THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE																									
MANCHESTER	444	3	4	76	81	92	87	81	82	63	71	80	65	65	8.4	18	19	63	63	18	1	5	21	29	26	14	4	5.3	6
MANSFIELD	111	6	4	86	80	95	95	91	91	76	81	91	85	75	9 5	13	11	77	67	13	1	0	4	10	21	41	24	6.7	1
MERIDEN	601	3	6	64	74	86	81	78	70	58	55	81	62	59	7.7	24	19	57	61	24	2	5	18	21	24	18	11	5.6	8
MIDDLETOWN	296	3	6	74	77	93	90	82	76	54	61	71	56	55	7.9	32	20	48	59	32	0	2	18	33	23	16	8	5.5	2
MILFORD	434	3	4	82	78	96	92	91	85	63	69	85	72	66	8.8	14	19	67	65	14	1	3	20	16	25	23	11	5.7	5
MONROE	244	4	2	83	84	98	94	91	87	70	83	89	74	72	9.3	20	11	69	64	20	0	1	17	18	25	21	17	6.0	2
MONTVILLE	215	4	5	72	72	94	90	88	85	60	63	82	64	58	8.3	27	19	54	61	27	3	4	24	27	27	10	5	5.2	8
NAUGATUCK	298	2	6	71	62	92	89	88	82	63	64	83	61	60	8.2	18	24	58	62	18	3	8	20	28	16	16	9	5.3	11
NEW BRITAIN	406	3	6	47	67	86	75	73	60	44	38	64	40	35	6.3	44	24	32	55	44	7	13	39	21	14	6	1	4.4	19
NEW CANAAN	191	2	1	76	77	94	91	91	89	77	86	92	81	83	9.4	12	12	77	67	12	1	3	9	18	25	27	17	6.1	4
NEW FAIRFIELD	160	4	2	83	88	96	93	93	90	69	80	88	83	74	9.4	8	13	80	68	8	1	4	13	28	31	14	9	5.6	6
NEW HAVEN	1018	1	7	45	68	79	73	66	59	41	30	55	33	31	5.9	53	18	29	53	53	5	13	38	23	12	6	3	4.5	19
NEWINGTON	240	2	3	81	90	95	90	89	87	68	79	89	74	69	9.1	12	14	74	66	12	0	3	21	28	28	18	2	5.4	3
NEW LONDON	207	3	6	68	75	86	72	80	67	59	50	70	43	47	7.2	42	20	38	56	42	2	7	45	23	14	7	1	4.7	9
NEW MILFORD	308	5	4	75	79	94	92	87	87	71	76	85	74	72	8.9	15	16	69	65	15	0	2	9	14	24	28	23	6.4	2
NEWTOWN	225	5	2	78	75	94	95	92	84	75	76	96	84	81	9.3	8	10	82	68	8	0	1	8	17	17	32	24	6.4	2
NORTH BRANFORD	157	4	3	74	73	96	94	87	83	65	66	83	57	56	8.3	13	27	60	64	13	1	6	17	31	19	16	10	5.5	7
NORTH CANAAN	28	6	4	71	68	96	93	79	75	68	71	93	68	82	8.6	14	21	64	64	14	4	4	11	21	29	18	14	5.8	7
NORTH HAVEN	193	2	3	80	78	96	94	90	83	55	59	90	72	72	8.7	13	16	72	66	13	1	5	17	21	26	19	10	5.7	5
NORTH STONINGTON	71	5	3	75	72	96	100	94	87	69	77	90	76	83	9.2	4	21	75	67	4	3	0	15	28	24	17	13	5.7	3
NORWALK	631	3	6	66	68	89	78	75	74	55	57	70	52	50	7.4	36	21	43	57	36	5	12	27	27	16	9	5	4.8	17
NORWICH	382	3	6	71	78	88	89	84	77	62	65	78	62	56	8.1	25	19	56	60	25	3	6	26	23	25	11	7	5.2	8
OLD SAYBROOK	93	5	4	89	78	97	95	93	91	79	80	85	77	77	9.5	10	14	76	67	10	1	4	20	28	21	16	10	5.5	5
OXFORD	112	5	3	86	85	95	94	89	87	73	77	88	77	78	9.3	10	13	77	67	10	2	4	17	32	27	9	10	5.5	6
PLAINFIELD	206	6	6	69	74	90	87	81	76	59	65	83	59	59	8.1	20	20	60	62	20	1	2	14	28	31	15	10	5.7	3
PLAINVILLE	152	4	5	87	84	95	93	93	77	62	66	85	74	72	8.9	12	19	69	66	12	0	5	24	26	16	14	15	5.6	5
PLYMOUTH	143	2	5	70	83	94	90	90	81	62	71	88	69	66	8.7	14	17	69	64	14	2	3	25	24	22	17	7	5.4	5
POMFRET	43	6	4	81	74	93	86	84	84	72	79	88	67	63	8.7	19	16	65	64	19	0	2	7	14	21	28	28	6.5	2

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TEST DATE: 10/90

				OBJECTIVES TESTED: WRITING MECHANICS				STUDY SKILLS		LISTENING COMPREHENSION		READING COMPREHENSION			TOTAL LANGUAGE ARTS	DEGREES OF READING POWER (DRP)					WRITING SAMPLE								
				capitalization and punctuation	spelling (homonyms/abbreviations)	agreement	tone	locating information	notetaking and outlining	literal	inferential and evaluative	literal	inferential	evaluative	Average Number of Objectives Mastered	Below 55	55-61	62+	Average DRP Score	% of Students Needing Further Diagnosis	2	3	4	5	6	7	8	Average Holistic Score	% of Students Needing Further Diagnosis
MASTERY CRITERIA (NUMBER CORRECT/NUMBER POSSIBLE)				9/12	6/8	11/15	3/4	9/2	3/4	3/4	12/16	6/8	10/14	10/14															
DISTRICT	# OF STUDENTS TESTED	TOC	ERG	SCORES REPRESENT THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE																									
PORTLAND	86	5	4	86	83	94	98	92	87	69	81	90	81	70	9.3	10	12	78	67	10	1	1	20	28	28	12	10	5.6	2
PRESTON	58	4	5	81	83	95	95	93	93	71	78	95	84	86	9.5	10	9	81	67	10	0	2	17	26	41	14	0	5.5	2
PUTNAM	113	6	6	67	62	91	88	86	82	63	81	81	69	65	8.4	19	19	62	62	19	1	4	27	19	26	12	11	5.4	5
REDDING	95	5	1	77	79	99	98	89	93	83	83	96	79	81	9.6	4	9	86	69	4	0	1	12	26	20	28	13	6.0	1
RIDGEFIELD	222	5	1	83	86	98	97	96	95	78	86	92	83	84	9.8	4	7	89	72	4	0	2	19	25	29	17	8	5.6	2
ROCKY HILL	144	4	4	90	87	99	95	95	96	74	84	93	83	78	9.7	6	15	80	69	6	1	3	10	24	33	17	12	5.8	4
SALEM	38	5	4	84	79	95	92	82	79	79	79	82	63	63	8.8	16	16	68	63	16	0	3	11	29	37	11	11	5.7	3
SALISBURY	25	6	4	88	88	92	88	100	100	75	83	100	80	88	9.9	0	21	79	69	0	0	0	8	8	17	38	29	6.7	0
SEYMOUR	133	5	5	80	92	95	89	88	77	61	68	83	69	67	8.7	12	19	69	65	12	1	3	32	29	19	10	7	5.2	4
SHARON	23	6	4	91	91	96	91	96	96	74	83	100	83	70	9.7	4	13	83	71	4	4	4	4	9	22	30	26	6.3	9
SHELTON	352	3	3	74	84	94	92	90	84	69	75	88	76	66	8.9	13	16	71	65	13	2	6	20	23	24	16	8	5.4	8
SHERMAN	16	6	2	88	100	94	100	94	88	100	94	81	75	81	9.9	6	13	81	71	6	0	6	19	13	44	13	6	5.6	6
SIMSBURY	285	4	1	90	90	99	97	96	94	82	88	94	88	84	10.0	5	9	86	72	5	0	1	16	24	34	17	8	5.7	1
SOMERS	95	4	3	76	79	98	92	88	88	72	80	85	78	69	9.0	15	18	67	65	15	5	3	37	19	21	11	4	5.0	8
SOUTHINGTON	446	3	5	83	83	96	92	90	83	67	77	89	77	76	9.1	13	15	72	66	13	1	2	14	20	27	24	12	5.9	3
SOUTH WINDSOR	286	2	2	70	70	91	86	79	81	67	74	85	70	67	8.4	17	19	64	64	17	4	6	24	18	21	17	11	5.4	9
SPRAGUE	31	4	5	65	68	87	87	90	81	52	52	87	65	55	7.9	39	16	45	59	39	0	3	33	17	33	7	7	5.3	3
STAFFORD	99	5	5	87	78	96	93	90	84	65	68	92	74	68	9.0	4	24	71	66	4	1	4	15	22	31	16	10	5.7	5
STAMFORD	758	1	6	63	67	87	80	77	67	48	49	71	52	49	7.1	29	22	49	59	29	9	16	25	19	16	10	5	4.7	25
STERLING	42	6	5	71	50	88	71	74	64	43	57	74	62	48	7.0	36	17	48	59	36	0	5	26	33	21	12	2	5.2	5
STONINGTON	133	4	5	72	75	95	92	86	86	61	71	84	64	65	8.5	17	23	60	63	17	3	11	17	28	22	14	5	5.1	14
STRATFORD	427	2	5	78	76	97	93	91	83	66	62	87	69	67	8.7	12	22	66	65	12	1	3	23	28	26	13	7	5.4	4
SUFFIELD	104	4	3	80	85	93	92	91	91	78	92	92	76	81	9.5	6	16	78	68	6	0	1	8	10	33	29	20	6.4	1
THOMASTON	77	4	5	65	69	99	92	83	84	53	53	84	65	57	8.1	29	16	56	60	29	0	5	12	13	32	18	20	6.1	5
THOMPSON	97	6	6	81	72	97	91	87	86	69	79	85	71	71	8.9	14	19	67	64	14	1	0	9	19	34	28	9	6.1	1
TOLLAND	150	5	3	86	77	96	92	89	86	82	81	89	80	74	9.3	9	13	79	68	9	1	1	14	20	33	22	10	5.9	1
TORRINGTON	256	3	6	67	80	95	95	91	82	75	80	87	72	75	9.0	13	20	67	65	13	1	4	18	24	21	22	11	5.7	5
TRUMBULL	345	2	2	81	83	93	91	91	88	70	80	84	73	70	9.0	12	12	76	67	12	1	1	14	22	28	23	10	5.9	2

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TEST DATE: 10/90

				OBJECTIVES TESTED											TOTAL LANGUAGE ARTS	DEGREES OF READING POWER (DRP)					WRITING SAMPLE								
				WRITING MECHANICS				STUDY SKILLS		LISTENING COMPREHENSION		READING COMPREHENSION																	
DISTRICT	# OF STUDENTS TESTED	TOC	ERG	capitalization and punctuation	spelling (homonyms/abbreviations)	agreement	tone	locating information	notetaking and outlining	literal	inferential and evaluative	literal	inferential	evaluative	Average Number of Objectives Mastered	Below 55	55-61	62+	Average DRP Score	% of Students Needing Further Diagnosis	2	3	4	5	6	7	8	Average Holistic Score	% of Students Needing Further Diagnosis
MASTERY CRITERIA (NUMBER CORRECT/NUMBER POSSIBLE)				9/12	6/8	11/15	3/4	9/2	3/4	3/4	12/16	6/8	10/14	10/14															
				SCORES REPRESENT THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE																									
UNION	7	6	5	86	100	100	100	86	100	86	100	100	100	57	10.1	0	14	86	73	0	0	0	0	14	14	43	29	6.9	0
VERNON	286	3	4	83	84	96	94	92	87	73	76	90	76	76	9.3	10	17	73	66	10	1	1	11	21	36	21	8	5.9	2
VOLUNTOWN	25	6	5	72	76	100	92	88	80	52	72	84	68	64	8.5	20	4	76	65	20	4	8	20	8	24	28	8	5.6	12
WALLINGFORD	410	3	5	83	84	96	93	91	85	66	69	87	72	68	8.9	15	18	67	65	15	0	4	23	27	23	15	7	5.4	4
WATERBURY	911	1	6	51	57	84	77	69	61	41	36	60	40	38	6.1	42	23	35	56	42	4	8	36	27	16	7	2	4.7	12
WATERFORD	162	4	4	80	82	92	91	88	85	73	75	86	71	70	8.9	10	20	70	66	10	1	3	20	25	24	14	12	5.6	4
WATERTOWN	225	2	5	89	82	96	96	94	89	72	83	91	82	79	9.5	2	14	84	71	2	0	2	15	26	23	23	11	5.8	2
WESTBROOK	46	6	4	93	76	100	93	87	87	70	76	83	80	78	9.2	17	11	72	66	17	0	0	2	18	24	27	29	6.6	0
WEST HARTFORD	496	2	2	72	80	95	93	90	88	71	77	91	79	77	9.1	11	13	77	68	11	0	1	5	10	26	30	28	6.6	1
WEST HAVEN	449	2	6	71	73	94	91	86	76	56	64	83	63	59	8.2	14	20	66	64	14	4	8	30	32	19	6	2	4.8	11
WESTON	113	5	1	78	80	99	98	94	92	82	90	95	83	83	9.7	4	7	89	72	4	0	2	12	17	29	33	7	6.0	2
WESTPORT	196	3	1	75	84	97	96	91	93	79	78	94	83	85	9.6	8	11	82	69	8	2	5	10	16	30	25	13	5.9	6
WETHERSFIELD	184	2	3	86	80	98	95	90	88	68	76	91	69	74	9.2	7	16	78	68	7	1	0	3	8	15	39	33	6.9	1
WILLINGTON	43	5	4	63	67	93	98	84	81	74	79	91	70	72	8.7	28	12	60	63	28	0	0	21	7	43	19	10	5.9	0
WILTON	191	4	1	84	87	99	98	95	91	87	94	98	90	90	10.1	6	8	86	71	6	0	0	4	10	23	39	25	6.7	0
WINCHESTER	124	6	5	69	70	96	91	84	77	67	66	83	62	66	8.3	19	19	62	63	19	2	4	27	30	23	9	6	5.2	6
WINDHAM	198	6	6	61	58	87	84	70	73	51	55	80	57	55	7.3	29	23	48	59	29	6	13	27	25	16	9	5	4.8	18
WINDSOR	338	2	4	62	77	95	87	85	83	65	71	91	66	73	8.5	15	18	66	64	15	1	3	17	29	27	17	7	5.6	4
WINDSOR LOCKS	102	4	5	90	78	91	92	93	82	69	79	88	69	68	9.0	8	19	74	67	8	0	2	18	29	36	10	5	5.5	2
WOLCOTT	157	2	5	85	72	95	89	95	90	68	76	87	76	71	9.0	6	17	76	67	6	0	4	22	18	32	17	8	5.6	4
WOODSTOCK	71	6	3	62	70	89	92	89	89	72	79	82	70	73	8.7	15	18	66	65	15	1	7	27	25	20	15	4	5.2	8
REG. DIST. NO. 04	129	6	4	78	76	94	91	90	83	72	78	87	75	71	9.0	8	11	81	68	8	1	1	12	25	33	22	8	5.8	2
REG. DIST. NO. 05	306	4	2	84	82	99	95	94	90	83	83	96	87	84	9.8	4	9	87	71	4	0	2	12	26	24	24	10	5.9	3
REG. DIST. NO. 06	46	6	4	80	83	98	98	91	89	70	76	93	80	85	9.4	4	24	72	66	4	2	4	24	31	29	7	2	5.1	7
REG. DIST. NO. 07	132	6	3	82	83	98	95	88	90	86	90	96	81	83	9.7	4	5	91	71	4	1	3	17	15	39	20	5	5.7	4
REG. DIST. NO. 08	206	5	2	67	76	94	85	83	77	72	68	83	68	67	8.4	24	20	56	61	24	1	4	25	17	29	16	8	5.5	5
REG. DIST. NO. 10	169	5	3	80	79	97	98	93	92	80	87	96	83	76	9.6	4	12	83	69	4	1	1	10	24	27	26	11	6.0	2
REG. DIST. NO. 11	48	6	4	83	74	96	87	87	87	68	77	89	74	74	9.0	17	15	68	65	17	0	4	8	23	25	15	25	6.1	4

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DISTRICT	# OF STUDENTS TESTED	TOC	ERG	OBJECTIVES TESTED: WRITING MECHANICS				STUDY SKILLS		LISTENING COMPREHENSION		READING COMPREHENSION			TOTAL LANGUAGE ARTS	DEGREES OF READING POWER (DRP)					WRITING SAMPLE								
				capitalization and punctuation	spelling (homonyms/abbreviations)	agreement	tone	locating information	notetaking and outlining	literal	inferential and evaluative	literal	inferential	evaluative	Average Number of Objectives Mastered	Below 55	55-61	62+	Average DRP Score	% of Students Needing Further Diagnosis	2	3	4	5	6	7	8	Average Holistic Score	% of Students Needing Further Diagnosis
MASTERY CRITERIA (NUMBER CORRECT/NUMBER POSSIBLE)				9/12	6/8	11/15	3/4	9/2	3/4	3/4	12/16	6/8	10/14	10/14															
				SCORES REPRESENT THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE																									
REG. DIST. NO. 12	63	6	2	73	87	97	90	90	92	67	79	95	83	79	9.3	13	8	79	68	13	3	0	5	13	35	22	22	6.3	3
REG. DIST. NO. 13	99	5	3	85	77	96	92	93	83	76	86	91	84	77	9.4	10	19	71	66	10	3	6	7	33	26	17	7	5.5	9
REG. DIST. NO. 14	93	4	2	86	75	96	87	90	84	72	73	92	71	78	9.1	14	20	66	64	14	3	4	12	31	22	19	9	5.6	8
REG. DIST. NO. 15	227	4	3	77	80	98	95	92	87	71	77	92	76	76	9.2	11	11	78	67	11	0	2	8	15	37	22	16	6.2	2
REG. DIST. NO. 16	148	4	5	76	78	95	86	86	85	70	62	80	63	59	8.4	21	20	59	62	21	2	5	26	23	24	12	8	5.3	7
REG. DIST. NO. 17	160	6	3	84	73	95	88	85	88	73	81	85	74	66	8.9	14	13	73	66	14	2	5	17	22	28	17	9	5.6	7
REG. DIST. NO. 18	109	6	2	70	72	95	96	88	87	70	83	94	75	81	9.1	10	12	78	67	10	2	6	18	19	27	24	5	5.5	7

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TEST DATE: 10/90

				OBJECTIVES TESTED											TOTAL LANGUAGE ARTS	DEGREES OF READING POWER (DRP)					WRITING SAMPLE								
				WRITING MECHANICS				STUDY SKILLS		LISTENING COMPREHENSION		READING COMPREHENSION																	
				capitalization and punctuation	spelling (homonyms/abbreviations)	agreement	tone	locating information	notetaking and outlining	literal	inferential and evaluative	literal	inferential	evaluative	Average Number of Objectives Mastered	Below 55	55-61	62*	Average DRP Score	% of Students Needing Further Diagnosis	2	3	4	5	6	7	8	Average Holistic Score	% of Students Needing Further Diagnosis
MASTERY CRITERIA (NUMBER CORRECT/NUMBER POSSIBLE)				9/12	6/8	11/15	3/4	9/2	3/4	3/4	12/16	6/8	10/14	10/14															
DISTRICT	# OF STUDENTS TESTED	TOC	ERG	SCORES REPRESENT THE PERCENT OF STUDENTS MASTERING EACH OBJECTIVE																									
TOC 1 TOTAL	5167			49	67	80	73	68	58	42	35	60	39	35	6.1	47	21	32	55	47	5	12	31	26	16	7	3	4.7	17
TOC 2 TOTAL	6336			75	78	95	91	88	84	66	72	87	72	70	8.8	13	17	70	65	13	1	3	18	22	24	19	12	5.7	5
TOC 3 TOTAL	7292			72	76	92	87	84	79	62	65	81	64	62	8.3	22	19	59	62	22	2	5	22	24	23	16	8	5.4	7
TOC 4 TOTAL	6114			81	81	96	93	91	87	72	78	90	76	75	9.2	11	15	75	67	11	1	2	14	20	28	21	15	5.9	3
TOC 5 TOTAL	3230			80	80	96	93	91	86	73	77	90	77	75	9.2	11	15	74	66	11	1	2	15	22	27	21	12	5.8	3
TOC 6 TOTAL	2503			76	74	94	91	86	83	69	76	87	71	69	8.8	15	17	69	65	15	1	4	17	22	26	19	11	5.7	5
ERG 1 TOTAL	1682			82	85	98	96	94	92	80	86	94	85	84	9.7	7	10	84	69	7	1	2	11	18	28	25	15	6.0	3
ERG 2 TOTAL	5512			79	80	96	92	90	87	73	80	90	78	77	9.2	11	13	75	67	11	1	2	12	18	26	24	17	6.0	3
ERG 3 TOTAL	3355			80	79	96	93	90	87	72	78	89	75	72	9.1	11	15	74	67	11	1	3	15	22	28	20	12	5.8	4
ERG 4 TOTAL	4738			77	79	95	91	88	85	67	73	87	72	70	8.8	14	17	69	65	14	1	3	17	22	26	19	12	5.8	4
ERG 5 TOTAL	4086			78	79	95	91	89	83	65	70	87	71	68	8.8	14	18	67	65	14	1	3	21	25	25	16	8	5.5	5
ERG 6 TOTAL	7771			66	70	89	84	80	73	56	57	76	56	54	7.6	27	21	52	60	27	3	7	26	25	21	12	6	5.2	10
ERG 7 TOTAL	3498			45	69	77	70	66	55	40	31	58	35	31	5.8	51	21	28	53	51	4	12	31	27	16	7	3	4.7	17
STATE TOTAL	30642			72	76	92	88	85	79	63	66	82	66	64	8.4	20	17	62	63	20	2	5	20	23	24	17	10	5.5	7

Appendix J

Grade Eight Connecticut Mastery Test
Percent of Students Meeting the Statewide Goal
In Each Content Area
By District

Grade Eight Connecticut Mastery Test
Percent of Students Meeting the Statewide Goal *
In Each Content Area By District

DISTRICT	READING	WRITING	MATH
ANSONIA	63	31	37
ASHFORD	86	67	62
AVON	83	52	69
BERLIN	69	37	44
BETHEL	72	43	52
BLOOMFIELD	59	20	23
BOLTON	89	55	66
BOZRAH	63	30	43
BRANFORD	78	15	47
BRIDGEPORT	31	7	11
BRISTOL	62	24	31
BROOKFIELD	81	28	61
BROOKLYN	57	24	30
CANAAN	55	18	18
CANTERBURY	65	25	41
CANTON	83	49	53
CHESHIRE	78	45	52
CLINTON	66	26	34
COLCHESTER	65	16	30
COLUMBIA	87	45	70
CORNWALL	93	93	86
COVENTRY	73	30	36
CROMWELL	73	78	41
DANBURY	51	24	28
DARIEN	75	28	59
DERBY	57	28	13
EASTFORD	53	29	24
EAST GRANBY	76	57	50
EAST HADDAM	79	28	46
EAST HAMPTON	72	23	42
EAST HARTFORD	65	24	39
EAST HAVEN	61	10	29
EAST LYME	77	51	46
EASTON	81	72	66
EAST WINDSOR	76	49	37
ELLINGTON	71	36	40
ENFIELD	65	31	41
FAIRFIELD	71	20	49
FARMINGTON	85	35	65
FRANKLIN	60	28	24
GLASTONBURY	75	39	59
GRANBY	84	46	56
GREENWICH	67	51	48
GRISWOLD	59	21	25
GROTON	60	24	33
GUILFORD	81	46	49
HAMDEN	63	31	39
HARTFORD	23	12	11
HARTLAND	80	40	45

* READING GOAL = 62 DRP UNITS WITH 80% COMPREHENSION
WRITING GOAL = HOLISTIC SCORE OF 7 ON A SCALE OF 2 TO 8
MATH GOAL = 31 OF 36 OBJECTIVES MASTERED

Grade Eight Connecticut Mastery Test
Percent of Students Meeting the Statewide Goal *
In Each Content Area By District

DISTRICT	READING	WRITING	MATH
KENT	86	51	31
KILLINGLY	54	22	36
LEBANON	81	16	36
LEDYARD	67	50	47
LISBON	71	20	33
LITCHFIELD	86	49	50
MADISON	81	49	65
MANCHESTER	62	18	35
MANSFIELD	76	64	64
MERIDEN	56	29	24
MIDDLETOWN	48	24	27
MILFORD	66	34	37
MONROE	69	37	50
MONTVILLE	53	14	29
NAUGATUCK	56	25	35
NEW BRITAIN	30	6	11
NEW CANAAN	77	43	59
NEW FAIRFIELD	77	22	47
NEW HAVEN	27	8	9
NEWINGTON	74	20	41
NEW LONDON	38	8	16
NEW MILFORD	69	51	42
NEWTOWN	82	55	59
NORTH BRANFORD	60	25	27
NORTH CANAAN	64	32	21
NORTH HAVEN	71	29	44
NORTH STONINGTON	75	30	39
NORWALK	42	13	29
NORWICH	55	17	23
OLD SAYBROOK	75	26	44
OXFORD	76	19	52
PLAINFIELD	59	24	25
PLAINVILLE	68	29	46
PLYMOUTH	69	24	34
POMFRET	65	56	49
PORTLAND	78	22	55
PRESTON	81	14	53
PUTNAM	61	23	38
REDDING	85	41	49
RIDGEFIELD	89	25	77
ROCKY HILL	79	28	62
SALEM	68	21	32
SALISBURY	76	64	43
SEYMOUR	69	17	32
SHARON	83	57	30
SHELTON	70	24	40
SHERMAN	81	19	44
SIMSBURY	85	25	63
SOMERS	67	15	47

* READING GOAL = 62 DRP UNITS WITH 80% COMPREHENSION
WRITING GOAL = HOLISTIC SCORE OF 7 ON A SCALE OF 2 TO 8
MATH GOAL = 31 OF 36 OBJECTIVES MASTERED

Grade Eight Connecticut Mastery Test
Percent of Students Meeting the Statewide Goal *
In Each Content Area By District

DISTRICT	READING	WRITING	MATH
SOUTHINGTON	72	36	42
SOUTH WINDSOR	64	28	38
SPRAGUE	45	13	26
STAFFORD	69	25	57
STAMFORD	48	15	26
STERLING	47	14	21
STONINGTON	60	18	40
STRATFORD	66	20	37
SUFFIELD	78	49	45
THOMASTON	56	38	21
THOMPSON	67	37	30
TOLLAND	79	32	47
TORRINGTON	65	31	40
TRUMBULL	76	34	45
UNION	86	71	71
VERNON	71	29	40
VOLUNTOWN	73	35	38
WALLINGFORD	66	22	35
WATERBURY	34	8	10
WATERFORD	70	27	42
WATERTOWN	84	34	47
WESTBROOK	70	53	66
WEST HARTFORD	77	57	55
WEST HAVEN	65	8	37
WESTON	89	40	61
WESTPORT	82	38	59
WETHERSFIELD	77	72	58
WILLINGTON	60	28	51
WILTON	86	63	72
WINCHESTER	62	14	25
WINDHAM	47	13	19
WINDSOR	66	24	42
WINDSOR LOCKS	74	15	54
WOLCOTT	76	24	43
WOODSTOCK	66	20	32
REGIONAL DIST 4	81	29	53
REGIONAL DIST 5	87	34	57
REGIONAL DIST 6	72	9	37
REGIONAL DIST 7	91	25	55
REGIONAL DIST 8	56	23	32
REGIONAL DIST 10	83	37	47
REGIONAL DIST 11	67	40	40
REGIONAL DIST 12	79	44	33
REGIONAL DIST 13	71	24	23
REGIONAL DIST 14	66	28	42
REGIONAL DIST 15	76	36	52
REGIONAL DIST 16	59	20	24
REGIONAL DIST 17	73	26	35
REGIONAL DIST 18	77	28	39

* READING GOAL = 62 DRP UNITS WITH 80% COMPREHENSION
WRITING GOAL = HOLISTIC SCORE OF 7 ON A SCALE OF 2 TO 8
MATH GOAL = 31 OF 36 OBJECTIVES MASTERED

Grade Eight Connecticut Mastery Test
Percent of Students Meeting the Statewide Goal *
In Each Content Area By TOC

	READING	WRITING	MATH
TOC 1 TOTAL	31	10	13
TOC 2 TOTAL	70	30	44
TOC 3 TOTAL	58	24	32
TOC 4 TOTAL	74	36	49
TOC 5 TOTAL	75	32	47
TOC 6 TOTAL	67	30	37
ERG 1 TOTAL	84	38	64
ERG 2 TOTAL	75	40	51
ERG 3 TOTAL	73	32	43
ERG 4 TOTAL	69	31	41
ERG 5 TOTAL	67	24	38
ERG 6 TOTAL	51	18	26
ERG 7 TOTAL	27	10	10
STATE TOTAL	61	26	36

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* READING GOAL = 62 DRP UNITS WITH 80% COMPREHENSION
WRITING GOAL = HOLISTIC SCORE OF 7 ON A SCALE OF 2 TO 8
MATH GOAL = 31 OF 36 OBJECTIVES MASTERED

APPENDIX K

Type of Community Classifications

Type of Community

TOC 1 = LARGE CITY - a town with a population of more than 100,000.

TOC 2 = FRINGE CITY - a town contiguous with a large city, and with a population over 10,000.

TOC 3 = MEDIUM CITY - a town with a population between 25,000 and 100,000 and not a Fringe City.

TOC 4 = SMALL TOWN (Suburban) - a town within an SMSA* with a population of less than 25,000, not a Fringe City.

TOC 5 = SMALL TOWN (Emerging Suburban) - a town with a population of less than 25,000 included in what was a proposed 1980 SMSA but not included in a 1970 SMSA.

TOC 6 = SMALL TOWN (Rural) - a town not included in an SMSA, with a population of less than 25,000.

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*Standard Metropolitan Statistical Area

APPENDIX L

Education Reference Group Descriptions

Education Reference Group Descriptions

The education reference groups were formed from an analysis of districts' median family income, a percentage of high school graduates, a percentage of those in managerial/professional occupations, a percentage of single-parent families, a percentage of those below poverty and a percentage of non-English home language from the 1980 census. The groups have not been named, but have been labeled I through VII. Note, however, that the groups run from extremely affluent suburban communities (I) to our three largest cities of Hartford, Bridgeport and New Haven (VII). Some differ widely with respect to all of the family background variables; others differ slightly with respect to one or two. In addition to the six variables used to classify districts, the group descriptions below also include superintendents' comments that were provided in a Department survey in 1988.

Group I. These 13 districts were wealthy, professional suburbs. The median family income in 1979 averaged $40,425. Residents were extremely well educated. Nearly 90% had at least a high school diploma, 42% had a bachelor's degree and 49% had a managerial or professional job. There were relatively few children with educational disadvantages here. Only 7% of the families were single-parent, about 8% spoke a language other than English at home and almost no one (2%) lived in poverty. Superintendents within these towns used the adjectives "suburban," "affluent," "growing" and "bedroom community" to describe them.

Group II. Residents in the 29 districts of Group II were affluent, well-educated professionals, but to a lesser extent than residents of Group I. The median family income averaged $28,113, more than 83% of the residents had high school diplomas, 29% had a college degree and 36% had a managerial or professional job. Like Group I, this group had a low percentage of people who spoke another language at home (8%), almost no one in poverty (2%) and relatively few single-parent families (9%). Like the superintendents in Group I, superintendents from these towns described their communities as "affluent," "bedroom communities," "growing" and "suburban."

Group III. These 34 districts were mostly rural bedroom communities. Like Groups I and II, these towns did not have many disadvantaged children. There were only 7% who spoke a language other than English at home, only 7% who were from single-parent families and only 3% who were poor. Adults were slightly less affluent (median family income of $24,431), less likely to have a high school diploma (77%) and less likely to have a managerial or professional job (28%) than people in Group II. Like the previous two groups, these towns were described by superintendents as "suburban," "growing" and "bedroom communities." Several superintendents used "rural" and "middle class" (as well as "affluent") to describe their communities.

Group IV. This group of 37 districts was probably the most diverse set of towns, containing a number of coastal and resort communities, as well as rural and suburban areas. Group IV was similiar to Group III in median family income ($22,609), percentage of high school graduates (77%), percentage of managers/professionals (29%) and percentage of non-English home language (7%), but had a significantly higher percentage of single-parent families (12% versus 7%) and a slightly higher percentage of families below poverty (5% versus 3%). Superintendents' descriptions reflect this group's diversity. They describe their towns as "bedroom," "growing," "rural," "suburban," "middle income" and "affluent."

Group V. These 30 districts made up the first group of working class/blue collar communities. This group had a significantly lower percentage of high school graduates (68%) and percentage of managers/professionals (19%) than Group IV. Other characterisitics were similar to Group IV: the average income was $21,920, there were 11% single-parent families, 5% below poverty and 9% of the population spoke a language other than English at home.

Group VI. This group of 23 districts included the state's medium-sized cities, the larger cities of Stamford and Waterbury, several former mill towns and some densely populated blue collar suburbs. Group VI had similar socioeconomic characteristics as Group V, but significantly greater proportions of single-parent families and families in which English was not the primary home language. The median family income of $20,325 was below the state average. An average of 16% of the residents spoke another language at home, and 17% of the families were headed by single parents. Only 63% of the residents had high school diplomas, and 6% lived below poverty level.

Group VII. Hartford, Bridgeport and New Haven were vastly different from other communities in Connecticut. An average of 28% of the families spoke a language other than English, 46% were headed by single parents, 20% lived in poverty and the median family income was $15,240.

APPENDIX M

Student Participation Rates

PARTICIPATION RATES FOR EIGHTH GRADE STUDENTS BY DISTRICT
SCHOOL YEAR 1990-1991

DISTRICT	TOTAL EIGHTH-GRADE POPULATION	STUDENTS ELIGIBLE FOR TESTING	PERCENT OF STUDENT POP EXEMPT FROM TESTING	PERCENT OF ELIGIBLE STUDENTS TESTED			
				MATHEMATICS	LANGUAGE ARTS	WRITING	READING
ANSONIA	147	131	10.9	94.7	97.7	95.4	96.2
ASHFORD	51	42	17.6	100.0	100.0	100.0	97.6
AVON	162	162	.0	100.0	100.0	100.0	100.0
BERLIN	171	162	5.3	98.8	98.8	99.4	99.4
BETHEL	223	216	3.1	98.6	98.6	99.1	98.1
BLOOMFIELD	198	187	5.6	100.0	99.5	99.5	99.5
BOLTON	57	56	1.8	100.0	100.0	100.0	100.0
BOZRAH	30	30	.0	100.0	100.0	100.0	100.0
BRANFORD	220	217	1.4	100.0	100.0	99.5	100.0
BRIDGEPORT	1,196	1,130	5.5	99.2	99.1	95.5	97.4
BRISTOL	557	516	7.4	100.0	100.0	99.8	99.8
BROOKFIELD	195	192	1.5	100.0	100.0	92.7	100.0
BROOKLYN	91	89	2.2	100.0	100.0	100.0	100.0
CANAAN	11	11	.0	100.0	100.0	100.0	100.0
CANTERBURY	75	71	5.3	97.2	98.6	98.6	98.6
CANTON	90	88	2.2	98.9	100.0	100.0	100.0
CHESHIRE	279	277	.7	100.0	99.3	99.6	99.6
CLINTON	147	141	4.1	99.3	100.0	99.3	99.3
COLCHESTER	114	109	4.4	99.1	99.1	99.1	99.1
COLUMBIA	47	47	.0	100.0	100.0	100.0	100.0
CORNWALL	16	14	12.5	92.9	100.0	92.9	100.0
COVENTRY	108	98	9.3	100.0	100.0	99.0	99.0
CROMWELL	109	106	2.8	100.0	100.0	100.0	99.1
DANBURY	625	565	9.6	98.2	98.8	95.6	98.2
DARIEN	163	163	.0	100.0	100.0	98.8	100.0
DERBY	95	83	12.6	98.8	98.8	98.8	98.8
EASTFORD	18	17	5.6	100.0	94.1	88.2	100.0
EAST GRANBY	46	46	.0	100.0	97.8	95.7	97.8
EAST HADDAM	79	72	8.9	100.0	98.6	94.4	97.2
EAST HAMPTON	141	137	2.8	100.0	100.0	100.0	100.0
EAST HARTFORD	407	360	11.5	100.0	99.2	96.9	96.9
EAST HAVEN	194	173	10.8	100.0	100.0	100.0	100.0
EAST LYME	157	157	.0	100.0	100.0	100.0	100.0
EASTON	64	64	.0	100.0	100.0	100.0	100.0
EAST WINDSOR	77	71	7.8	100.0	100.0	100.0	100.0
ELLINGTON	153	146	4.6	99.3	99.3	99.3	99.3
ENFIELD	474	453	4.4	98.0	97.4	97.4	97.6
FAIRFIELD	442	432	2.3	100.0	99.3	99.1	98.4
FARMINGTON	210	201	4.3	100.0	100.0	100.0	99.5
FRANKLIN	25	25	.0	100.0	100.0	100.0	100.0
GLASTONBURY	328	323	1.5	100.0	99.4	99.1	99.1
GRANBY	112	110	1.8	100.0	100.0	100.0	100.0
GREENWICH	475	432	9.1	99.3	99.5	98.1	98.6
GRISWOLD	123	117	4.9	100.0	100.0	100.0	99.1
GROTON	441	429	2.7	99.8	99.8	99.5	99.3
GUILFORD	248	243	2.0	100.0	99.6	94.7	99.6
HAMDEN	356	343	3.7	100.0	100.0	100.0	99.1
HARTFORD	1,607	1,376	14.4	97.8	98.0	96.1	96.9
HARTLAND	21	20	4.8	100.0	100.0	100.0	100.0
KENT	35	35	.0	100.0	100.0	100.0	100.0
KILLINGLY	209	199	4.8	100.0	100.0	99.5	99.0
LEBANON	77	69	10.4	100.0	100.0	98.6	98.6
LEDYARD	220	214	2.7	100.0	100.0	100.0	100.0

PARTICIPATION RATES FOR EIGHTH GRADE STUDENTS BY DISTRICT
SCHOOL YEAR 1990-1991

DISTRICT	TOTAL EIGHTH-GRADE POPULATION	STUDENTS ELIGIBLE FOR TESTING	PERCENT OF STUDENT POP EXEMPT FROM TESTING	PERCENT OF ELIGIBLE STUDENTS TESTED			
				MATHEMATICS	LANGUAGE ARTS	WRITING	READING
LISBON	53	49	7.5	100.0	100.0	100.0	100.0
LITCHFIELD	80	76	5.0	98.7	98.7	98.7	98.7
MADISON	202	199	1.5	99.0	99.0	99.0	99.0
MANCHESTER	449	445	.9	99.6	99.3	98.9	99.3
MANSFIELD	117	112	4.3	99.1	99.1	99.1	99.1
MERIDEN	633	605	4.4	98.8	99.0	98.3	98.0
MIDDLETOWN	308	296	3.9	99.7	99.7	99.7	100.0
MILFORD	454	437	3.7	99.3	99.3	98.4	99.3
MONROE	252	244	3.2	100.0	100.0	98.4	100.0
MONTVILLE	217	215	.9	100.0	100.0	99.1	99.5
NAUGATUCK	332	300	9.6	99.0	99.0	99.3	97.7
NEW BRITAIN	484	418	13.6	97.1	96.9	94.5	94.3
NEW CANAAN	195	191	2.1	100.0	100.0	100.0	100.0
NEW FAIRFIELD	165	164	.6	98.8	97.6	97.6	97.0
NEW HAVEN	1,205	1,023	15.1	98.7	98.8	93.5	94.0
NEWINGTON	247	241	2.4	100.0	99.6	99.2	99.2
NEW LONDON	230	207	10.0	100.0	100.0	100.0	99.5
NEW MILFORD	314	308	1.9	100.0	100.0	99.4	99.7
NEWTOWN	235	225	4.3	99.6	100.0	99.6	99.6
NORTH BRANFORD	162	157	3.1	100.0	100.0	100.0	100.0
NORTH CANAAN	30	28	6.7	100.0	100.0	100.0	100.0
NORTH HAVEN	199	194	2.5	99.5	99.5	98.5	99.5
NORTH STONINGTON	72	71	1.4	100.0	100.0	100.0	100.0
NORWALK	690	640	7.2	98.9	98.4	96.3	97.2
NORWICH	391	383	2.0	99.5	99.7	97.9	99.5
OLD SAYBROOK	94	93	1.1	98.9	100.0	98.9	98.9
OXFORD	119	113	5.0	100.0	99.1	96.5	98.2
PLAINFIELD	208	206	1.0	100.0	100.0	100.0	99.0
PLAINVILLE	164	153	6.7	99.3	98.7	99.3	98.0
PLYMOUTH	150	143	4.7	100.0	100.0	99.3	100.0
POMFRET	44	43	2.3	100.0	100.0	100.0	100.0
PORTLAND	92	86	6.5	100.0	100.0	100.0	100.0
PRESTON	60	58	3.3	100.0	100.0	100.0	100.0
PUTNAM	120	114	5.0	100.0	99.1	99.1	99.1
REDDING	96	96	.0	99.0	99.0	99.0	99.0
RIDGEFIELD	224	222	.9	100.0	100.0	100.0	99.5
ROCKY HILL	153	145	5.2	99.3	99.3	99.3	98.6
SALEM	43	38	11.6	100.0	100.0	100.0	100.0
SALISBURY	26	25	3.8	100.0	100.0	96.0	96.0
SEYMOUR	146	133	8.9	100.0	100.0	100.0	100.0
SHARON	28	23	17.9	100.0	100.0	100.0	100.0
SHELTON	368	353	4.1	99.2	99.4	99.2	99.2
SHERMAN	16	16	.0	100.0	100.0	100.0	100.0
SIMSBURY	296	289	2.4	100.0	98.6	98.3	98.3
SOMERS	99	96	3.0	99.0	99.0	99.0	99.0
SOUTHINGTON	467	448	4.1	99.6	99.6	99.6	99.6
SOUTH WINDSOR	291	288	1.0	99.3	99.3	99.0	99.3
SPRAGUE	31	31	.0	100.0	100.0	96.8	100.0
STAFFORD	121	102	15.7	99.0	97.1	96.1	96.1
STAMFORD	816	759	7.0	99.3	99.9	96.6	99.1
STERLING	45	43	4.4	97.7	97.7	97.7	97.7
STONINGTON	144	133	7.6	100.0	100.0	99.2	100.0
STRATFORD	450	427	5.1	100.0	100.0	99.5	100.0

PARTICIPATION RATES FOR EIGHTH GRADE STUDENTS BY DISTRICT
SCHOOL YEAR 1990-1991

DISTRICT	TOTAL EIGHTH-GRADE POPULATION	STUDENTS ELIGIBLE FOR TESTING	PERCENT OF STUDENT POP EXEMPT FROM TESTING	PERCENT OF ELIGIBLE STUDENTS TESTED			
				MATHEMATICS	LANGUAGE ARTS	WRITING	READING
SUFFIELD	106	104	1.9	100.0	100.0	100.0	100.0
THOMASTON	77	77	.0	100.0	100.0	98.7	100.0
THOMPSON	102	97	4.9	99.0	100.0	100.0	100.0
TOLLAND	152	150	1.3	100.0	100.0	100.0	100.0
TORRINGTON	284	262	7.7	100.0	97.7	96.6	96.9
TRUMBULL	345	345	.0	99.7	100.0	99.7	99.7
UNION	7	7	.0	100.0	100.0	100.0	100.0
VERNON	299	287	4.0	99.3	99.3	98.6	97.9
VOLUNTOWN	28	26	7.1	100.0	96.2	96.2	96.2
WALLINGFORD	439	413	5.9	99.0	99.3	97.8	99.0
WATERBURY	998	919	7.9	99.1	98.9	98.7	98.5
WATERFORD	166	162	2.4	100.0	100.0	100.0	100.0
WATERTOWN	250	225	10.0	99.6	100.0	99.6	99.6
WESTBROOK	49	47	4.1	97.9	97.9	95.7	97.9
WEST HARTFORD	514	496	3.5	100.0	100.0	99.8	100.0
WEST HAVEN	508	452	11.0	99.6	99.1	96.9	98.7
WESTON	114	113	.9	100.0	100.0	100.0	100.0
WESTPORT	208	196	5.8	99.5	99.5	99.5	100.0
WETHERSFIELD	198	186	6.1	100.0	98.9	98.4	98.9
WILLINGTON	44	43	2.3	97.7	100.0	97.7	100.0
WILTON	193	191	1.0	100.0	100.0	100.0	100.0
WINCHESTER	133	125	6.0	99.2	99.2	99.2	99.2
WINDHAM	230	201	12.6	99.0	98.5	97.0	97.5
WINDSOR	340	338	.6	100.0	100.0	99.7	99.7
WINDSOR LOCKS	106	102	3.8	100.0	100.0	100.0	100.0
WOLCOTT	157	157	.0	99.4	100.0	100.0	100.0
WOODSTOCK	73	71	2.7	100.0	100.0	100.0	100.0
REG. DIST. NO. 04	130	129	.8	100.0	100.0	100.0	99.2
REG. DIST. NO. 05	310	306	1.3	100.0	100.0	99.7	99.7
REG. DIST. NO. 06	55	46	16.4	100.0	100.0	97.8	100.0
REG. DIST. NO. 07	144	132	8.3	100.0	100.0	100.0	100.0
REG. DIST. NO. 08	207	207	.0	99.5	99.5	99.0	99.5
REG. DIST. NO. 10	184	169	8.2	100.0	100.0	100.0	100.0
REG. DIST. NO. 11	56	48	14.3	100.0	100.0	100.0	97.9
REG. DIST. NO. 12	66	63	4.5	100.0	100.0	100.0	100.0
REG. DIST. NO. 13	99	99	.0	100.0	100.0	100.0	100.0
REG. DIST. NO. 14	97	93	4.1	95.7	100.0	100.0	100.0
REG. DIST. NO. 15	239	231	3.3	98.3	97.8	94.8	98.3
REG. DIST. NO. 16	148	148	.0	100.0	100.0	100.0	100.0
REG. DIST. NO. 17	167	160	4.2	100.0	100.0	99.4	100.0
REG. DIST. NO. 18	112	109	2.7	100.0	100.0	100.0	99.1

PARTICIPATION RATES FOR EIGHTH GRADE STUDENTS BY DISTRICT
SCHOOL YEAR 1990-1991

DISTRICT	TOTAL EIGHTH-GRADE POPULATION	STUDENTS ELIGIBLE FOR TESTING	PERCENT OF STUDENT POP EXEMPT FROM TESTING	PERCENT OF ELIGIBLE STUDENTS TESTED			
				MATHEMATICS	LANGUAGE ARTS	WRITING	READING
TOC 1 TOTAL	5,822	5,207	10.6	98.8	98.8	96.0	97.1
TOC 2 TOTAL	6,690	6,350	5.1	99.8	99.6	99.0	99.2
TOC 3 TOTAL	7,801	7,353	5.7	99.1	99.0	98.0	98.5
TOC 4 TOTAL	6,311	6,137	2.8	99.7	99.6	98.8	99.4
TOC 5 TOTAL	3,367	3,242	3.7	99.4	99.6	99.0	99.3
TOC 6 TOTAL	2,670	2,514	5.8	99.6	99.5	99.1	99.1
ERG 1 TOTAL	1,715	1,687	1.6	99.9	99.6	99.5	99.6
ERG 2 TOTAL	5,671	5,526	2.6	99.7	99.6	98.8	99.4
ERG 3 TOTAL	3,513	3,370	4.1	99.5	99.4	98.9	99.4
ERG 4 TOTAL	4,930	4,751	3.6	99.6	99.6	99.2	99.2
ERG 5 TOTAL	4,343	4,110	5.4	99.5	99.4	99.0	99.3
ERG 6 TOTAL	8,063	7,830	2.9	99.1	99.1	97.7	98.2
ERG 7 TOTAL	3,762	3,529	6.2	98.5	98.6	95.2	96.3
STATE TOTAL	32,661	30,803	5.7	99.4	99.3	98.2	98.7

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